

| STATE OF UTAH<br>DEPARTMENT OF NATURAL RESOURCES<br>DIVISION OF OIL, GAS AND MINING  |           |                  |  |         |   | FORM 3<br>AMENDED REPORT   |                |          |       |        |
|--|-----------|------------------|--|---------|---|--|----------------|----------|-------|--------|
| <b>APPLICATION FOR PERMIT TO DRILL</b>   |           |                  |  |         |   | 1. WELL NAME and NUMBER<br>Lisbon 11-22MC  |                |          |       |        |
| 2. TYPE OF WORK<br>DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/> |           |                  |  |         |   | 3. FIELD OR WILDCAT<br>LISBON  |                |          |       |        |
| 4. TYPE OF WELL<br>Oil Well Coalbed Methane Well: NO   |           |                  |  |         |   | 5. UNIT or COMMUNITIZATION AGREEMENT NAME<br>LISBON (MCCRACKEN)  |                |          |       |        |
| 6. NAME OF OPERATOR<br>PATARA OIL & GAS, LLC   |           |                  |  |         |   | 7. OPERATOR PHONE<br>303 563-5364  |                |          |       |        |
| 8. ADDRESS OF OPERATOR<br>600 17th Street Ste 1900S, Denver, CO, 80202   |           |                  |  |         |   | 9. OPERATOR E-MAIL<br>eeseeman@pataraog.com  |                |          |       |        |
| 10. MINERAL LEASE NUMBER<br>(FEDERAL, INDIAN, OR STATE)<br>UTSL70008A  |           |                  | 11. MINERAL OWNERSHIP<br>FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>       |         |   | 12. SURFACE OWNERSHIP<br>FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> |                |          |       |        |
| 13. NAME OF SURFACE OWNER (if box 12 = 'fee')  |           |                  |  |         |   | 14. SURFACE OWNER PHONE (if box 12 = 'fee')  |                |          |       |        |
| 15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')   |           |                  |  |         |   | 16. SURFACE OWNER E-MAIL (if box 12 = 'fee')   |                |          |       |        |
| 17. INDIAN ALLOTTEE OR TRIBE NAME<br>(if box 12 = 'INDIAN')  |           |                  | 18. INTEND TO COMMINGLE PRODUCTION FROM<br>MULTIPLE FORMATIONS<br>YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/> |         |   | 19. SLANT<br>VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>                               |                |          |       |        |
| 20. LOCATION OF WELL   |           | FOOTAGES         |  | QTR-QTR | SECTION   | TOWNSHIP   | RANGE          | MERIDIAN |       |        |
| LOCATION AT SURFACE  |           | 1530 FNL 859 FWL |  | SWNW    | 11  | 30.0 S   | 24.0 E         | S        |       |        |
| Top of Uppermost Producing Zone  |           | 809 FNL 738 FWL  |  | NWNW    | 11  | 30.0 S   | 24.0 E         | S        |       |        |
| At Total Depth   |           | 631 FNL 730 FWL  |  | NWNW    | 11  | 30.0 S   | 24.0 E         | S        |       |        |
| 21. COUNTY<br>SAN JUAN   |           |                  | 22. DISTANCE TO NEAREST LEASE LINE (Feet)<br>859   |         |   | 23. NUMBER OF ACRES IN DRILLING UNIT<br>920  |                |          |       |        |
|  |           |                  | 25. DISTANCE TO NEAREST WELL IN SAME POOL<br>(Applied For Drilling or Completed)<br>3005   |         |   | 26. PROPOSED DEPTH<br>MD: 9059 TVD: 9000   |                |          |       |        |
| 27. ELEVATION - GROUND LEVEL<br>6948   |           |                  | 28. BOND NUMBER<br>UTB000428   |         |   | 29. SOURCE OF DRILLING WATER /<br>WATER RIGHTS APPROVAL NUMBER IF APPLICABLE<br>COMMERCIAL   |                |          |       |        |
| <b>Hole, Casing, and Cement Information</b>  |           |                  |  |         |   |  |                |          |       |        |
| String   | Hole Size | Casing Size      | Length   | Weight  | Grade & Thread  | Max Mud Wt.  | Cement         | Sacks    | Yield | Weight |
| COND   | 20        | 16               | 0 - 60   | 94.0    | H-40 ST&C   | 8.5  | Light (Hibond) | 50       | 2.16  | 11.6   |
| SURF   | 12.25     | 9.625            | 0 - 1900   | 36.0    | J-55 ST&C   | 9.8  | 35/65 Poz      | 275      | 2.81  | 11.6   |
|  |           |                  |  |         |   |  | Type III       | 100      | 1.47  | 14.2   |
| PROD   | 8.75      | 7                | 0 - 9059   | 26.0    | HCN-80 LT&C   | 10.5   | 35/65 Poz      | 600      | 2.16  | 12.5   |
| <b>ATTACHMENTS</b>   |           |                  |  |         |   |  |                |          |       |        |
| VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES   |           |                  |  |         |   |  |                |          |       |        |
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER   |           |                  |  |         | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN                            |  |                |          |       |        |
| <input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)   |           |                  |  |         | <input checked="" type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER |  |                |          |       |        |
| <input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)   |           |                  |  |         | <input checked="" type="checkbox"/> TOPOGRAPHICAL MAP                                 |  |                |          |       |        |
| NAME Danielle Gavito   |           |                  | TITLE Regulatory Technician  |         |   | PHONE 303 563-5378   |                |          |       |        |
| SIGNATURE  |           |                  | DATE 12/28/2011  |         |   | EMAIL dgavito@pataraog.com   |                |          |       |        |
| API NUMBER ASSIGNED<br>43037500200000  |           |                  | APPROVAL<br><br>Permit Manager   |         |   |  |                |          |       |        |

Patara Oil & Gas LLC  
**LISBON 11-22MC**  
 SHL: 1,530' FNL 859' FWL  
 SW/4 NW/4 SEC 11 TWN 30S RNG 24E  
 BHL: 631' FNL 730' FWL  
 NW/4 NW/4 SEC 11 TWN 30S RNG 24E  
 San Juan County, UT  
 Federal Lease #: UTSL070008A

CONFIDENTIAL

Onshore Oil & Gas Order No. 1 & No. 2  
**Drilling Program**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of the subcontractors. A copy of these conditions will be furnished with the field representative to ensure compliance.

Company Contact: Mr. Ryan Calhoun, Patara Oil & Gas LLC 303- 563-5373.

**ESTIMATED FORMATION TOPS**

Estimated tops of important geologic markers are as follows:

| Formation          | Depth (TVD) | Depth (MD)  | Subsea  | Type              |
|--------------------|-------------|-------------|---------|-------------------|
| Wingate            | Surface     | Surface     | 6,943'  |                   |
| Chinle             | 551'        | 551'        | 6,411'  | SS/Shale          |
| Cutler             | 1,698'      | 1,698'      | 5,264'  | SS/Shale/LS       |
| Hermosa            | 2,387'      | 2,400'      | 4,575'  | SS/Shale/LS       |
| Ismay              | 4,145'      | 4,160'      | 2,817'  | Shale/LS/Dol/Anhy |
| Paradox Salt       | 4,482'      | 4,500'      | 2,480'  | Hal               |
| Pinkerton Trail    | 7,483'      | 7,530'      | -521'   | SS/Shale/Dol/Anhy |
| Leadville          | 7,662'      | 7,710'      | -700'   | LS/Dol            |
| Ouray              | 7,985'      | 8,135'      | -1,023' | SS/Dol/Shale      |
| McCracken          | 8,216'      | 8,270'      | -1,254' | SS/Dol/Shale      |
| Lynch              | 8,413'      | 8,470'      | -1,451' | Dol               |
| <b>TOTAL DEPTH</b> | 9,000' TVD  | (9,059' MD) | -2,039' |                   |

**ANTICIPATED DEPTH OF WATER, OIL, GAS OR MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas or other mineral bearing formations as expected to be encountered are as follows:

| Formation | Depth (TVD) | Depth (MD) | Oil, Gas, Water        |
|-----------|-------------|------------|------------------------|
| Wingate   | Surface     | Surface    | Possible water bearing |
| Ismay     | 4,145'      | 4,160'     | Possible oil bearing   |
| Leadville | 7,662'      | 7,710'     | Possible gas bearing   |
| McCracken | 8,216'      | 8,270'     | Possible oil bearing   |
| Lynch     | 8,413'      | 8,470'     | Possible oil bearing   |

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected. All indications of usable water (10,000 ppm or less TDS) shall be reported to the Moab Field Office prior to running the next string of casing or before plugging orders are requested, whichever occurs first. If noticeable water flows are detected, samples will be submitted to the BLM along with any water analyses conducted.

*Note: The operator proposes to protect potable groundwater/aquifers as follows: The Wingate formation will be behind 9-5/8" J-55 36# ST&C surface casing set 1,900' at and cemented to surface.*

**DIRECTIONAL DRILLING PROGRAM**

- Kick-Off-Point (KOP) is estimated to be at  $\pm 2,000$  TVD.
- The degree of inclination will build to 7.54 degrees, the build will be 2 degrees per 100 ft. and the turn will be -2.53 degrees per 100 ft. and hold until 2,325' TVD is reached.
- The degree of inclination will then be held and the build and turn will be decreased back to 0 degrees and the well bore will remain vertical to 9,000' TVD (9,059' MD).

**CASING PROGRAM**

The proposed casing program is as follows:

| Zone Area  | Depth (MD)  | Hole Size | Outer Diameter | Weight | Grade  | Type     |
|------------|-------------|-----------|----------------|--------|--------|----------|
| Conductor  | 0' – 60'    | 20"       | 16"            | 94#    | H-40   | ST&C     |
| Surface    | 0' – 1,900' | 12-1/4"   | 9-5/8"         | 36#    | J-55   | ST&C New |
| Production | 0' – 9,059' | 8-3/4"    | 7"             | 26#    | HCL-80 | LTC New  |

- The BLM in Moab, Utah shall be notified at least 24 hours prior to the running and cementing of all casing strings, in order to have a BLM representative on location while running and cementing all casing strings.
- The proposed casing and cementing program shall be conducted as approved to protect and/or isolate all unusable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals.

The casing setting depth shall be calculated to position the casing seat opposite a competent formation, which will contain the maximum pressure to which it will be exposed during normal drilling operations. Determination of casing setting depth shall be based on all relevant factors, including presence/absence of hydrocarbons, fracture gradients, usable water zones, formation pressures, lost circulation zones, other minerals, or other unusual characteristics. All indications of usable water shall be reported.

- c. Casing design shall assume a formation pressure gradient of 0.44 psi per foot.
- d. Casing design shall assume fracture gradients from 0.85 to .90 psi per foot.
- e. All waiting on cement times shall be adequate to achieve a minimum of 500-psi compressive strength at the casing shoe prior to drilling out.
- f. All casing except the conductor casing shall be new or reconditioned and tested used casing that meets or exceeds API standards for new casing.
- g. The surface casing shall be cemented back to surface either during the primary cement job or by remedial cementing.
- h. All indication of usable water shall be reported to the authorized office prior to running the next string of casing or before plugging orders are requested, whichever occurs first.
- i. Surface casing shall have centralizers on the bottom 3 joints of casing (a minimum of one centralizer per joint starting with the shoe joint).
- j. Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a suitable preflush fluid, inner string cement method, etc., shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.
- k. All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or 1,500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield. If pressure declines more than 10% in 30 minutes, corrective actions shall be taken.
- l. On exploratory wells such as this, and on well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth of at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- m. The proposed casing integrity design parameters are as follows:

| Grade  | Weight | Burst (psi) | Burst Safety Factor | Collapse (psi) | Collapse Safety Factor | Body Yield | Joint Strength | Tension Safety Factor |
|--------|--------|-------------|---------------------|----------------|------------------------|------------|----------------|-----------------------|
| J-55   | 36#    | 3,520       | 1.1                 | 2,020          | 1.1                    | 564,000    | 394,000        | 1.8                   |
| HCL-80 | 26#    | 7,740       | 1.1                 | 7,800          | 1.1                    | 604,000    | 541,000        | 1.8                   |

- n. Casing design subject to revision based on geologic conditions encountered.

#### CEMENTING PROGRAM

The cement program will be as follows:

| <b>Conductor</b>  | <b>Type and Amount</b>  |
|-------------------|---|
| 0' – 60' TVD      | Redimix to surface, 50 SXS  |
| <b>Surface</b>    | <b>Type and Amount*</b>   |
| 0' – 1,900' TVD   | To surface: Lead $\pm 275$ sxs Type III, 35:65 Poz; Tail $\pm 100$ sxs Type III 1% CaCl |
| <b>Production</b> | <b>Type and Amount***</b>   |
| 1,600' - TD       | $\pm 600$ sxs Type III 35:65 Poz  |

\* Cement volume calculated with 50% excess.

\*\* Cement volume calculated with 15% excess.

| <b>Yields</b> | Surface:    | Lead: | Type III 35:65 Poz | 2.81 ft <sup>3</sup> /sx (11.6 ppg) |
|---------------|-------------|-------|--------------------|-------------------------------------|
|               |             | Tail: | Type III, 1% CaCl  | 1.47 ft <sup>3</sup> /sx (14.2 ppg) |
|               | Production: |       | Type III 35:65 Poz | 2.16 ft <sup>3</sup> /sx (12.5 ppg) |

**Cement Additives**

|             |       |                           |   |
|-------------|-------|---------------------------|---|
| Surface:    | Lead: | <b>35:65 Poz Type III</b> | 94 lb/sx Cement<br>0.04 lbs/sx Static Free<br>0.25 lbs/sx Cello Flake<br>2.0 lbs/sx Kol Seal<br>5% bwoc A-10<br>5% bwoc Sodium Metasilicate<br>0.5 gal/100 sxs FP-13L<br>1.0 lb/sx Pheno Seal<br>10 lbs/sx CSE-2<br>154.9% Fresh Water  |
|             | Tail: | <b>Type III</b>           | 94 lb/sx Cement<br>0.04 lbs/sx Static Free<br>1% bwoc Calcium Chloride<br>0.5 gal/100 sxs FP-13L<br>85.2% Fresh Water   |
| Production: |       | Type III 35:65 Poz        | 94 lb/sx Cement<br>0.04 lbs/sx Static Free<br>0.3% bwoc R-3<br>0.25 lbs/sx Cello Flake<br>3.0 lbs/sx Kol Seal<br>0.3% bwoc BA-59<br>0.5 gal/100 sxs FP-13L<br>10 lb/sx CSE-2<br>6.0% bwoc Bentonite II<br>0.5% bwoc Sodium Metasilicate |

|  |  |  |  |
|--|--|--|--|
|  |  |  | 0.3% bwoc FL-63<br>109.24% Fresh Water |
|--|--|--|--|

- a. The BLM in Moab, Utah will be notified, with sufficient lead time, in order to have a BLM representative on location while running all casing strings and cementing.
- b. After cementing but before commencing any test, the casing string shall stand cemented until the cement has reached a compressive strength of at least 500 psi at the shoe. WOC times shall be recorded in the driller's log.

### BOP REQUIREMENTS

Bureau of Land Management's minimum specification for pressure control equipment are as follows:

- a. Ram Type 11" Hydraulic double ram with 5,000 psi annular, 5,000 psi wp.
- b. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70% of internal yield pressure of casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. If a test plug is utilized, no bleed-off pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10% in 30 minutes occurs, the test shall be considered to have failed. Valve on casing head below test plug shall be open during test of BOP stack.
- c. Annular type preventers (if used) shall be tested to 70% of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.
- d. As a minimum, the above test shall be performed:
  - i. when initially installed
  - ii. whenever any seal subject to test pressure is broken
  - iii. following related repairs and
  - iv. at 30 day intervals
- e. Valves shall be tested from working pressure side during BOPE tests with all down stream valves open.
- f. When testing the kill line valve(s) shall be held open or the ball removed.
- g. Annular preventers (if used) shall be functionally operated at least weekly.
- h. Pipe and blind rams shall be activated each trip, however, this function need not be performed more than once a day.
- i. A BOPE pit level drill shall be conducted weekly for each drilling crew.

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests. Pressure tests shall apply to all related well control equipment.

BOP systems shall be consistent with API RP53. Pressure tests will be conducted before drilling out from under casing strings which have been set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in

use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

The BLM in Moab, Utah shall be notified, at least 24 hours prior to initiating the pressure test, in order to have a BLM representative on location during pressure testing.

- a. The size and rating of the BOP stack is shown on the attached diagram.
- b. A choke line and a kill line are to be properly installed. The kill line is not to be used as a fill-up line.
- c. The accumulator system shall have a pressure capacity to provide for repeated operation of hydraulic preventers.
- d. Drill string safety valve(s) to fit all tools in the drill string, are to be maintained on the rig floor while drilling operations are in progress.

#### MUD PROGRAM

The proposed circulating mediums to be employed in drilling are as follows:

| Interval (MD)   | Mud Type                    | Mud Weight     | Viscosity | Fluid Loss   |
|-----------------|-----------------------------|----------------|-----------|--------------|
| 0' – 1,900'     | Air, Air Mist, Gyp, & Water | <8.5ppg        | 26 - 40   | No Control   |
| 1,900' – 4,000' | Gyp                         | 9.7 – 9.8ppg   | 26 - 40   | No Control   |
| 4,000 – TD      | Saturated Salt Mud          | 10.1 – 10.5ppg | 35 - 45   | <10cc/30 min |

- a. Mud monitoring equipment to be used is as follows:  
Periodic checks of the mud systems will be made each tour. The mud level will be checked visually.
  - i. There will be sufficient mud on location to ensure well control. There will be approximately 450 bbls of mud in reserve. The mud system will be a closed loop system.
  - ii. A mud test shall be performed every 24 hours after mudding to determine, as applicable, density, viscosity, gel strength, static filtration loss and Ph.
  - iii. Hazardous substances specifically listed by the EPA as hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing or completion operations.

#### AUXILLARY EQUIPMENT

Auxiliary equipment to be used is as follows:

PVT equipment measuring mud volume, pump strokes and percent return flow to be installed after setting surface casing and installing BOPE. This system includes alarms and remote terminals located on the rig floor.

- i. Mud logger with gas monitor – BSC to TD.
- ii. Choke manifold with remote control choke.



- iii. Full opening floor valve with drill pipe thread.
  - iv. Upper and lower kelly cock
  - v. PVT monitor on pit level, audio and visual below surface casing.
- Gas Buster, centrifuge and closed loop mud system

### EVALUATION PROGRAM

The anticipated type and amount of testing, logging and coring are as follows:

|                      |   |
|----------------------|---|
| TD to Surface Casing | Platform Express (GR/AIT/NEUT-DEN w/PE) |
| Coring:              | No coring planned                       |
| Testing:             | No DST are planned or anticipated       |

### DOWNHOLE CONDITIONS

|                   |   |
|-------------------|---|
| Pressures:        | No abnormal conditions are anticipated<br>Anticipated BHP gradient: 0.44 psi/ft |
| Temperatures:     | No abnormal conditions are anticipated  |
| H <sub>2</sub> S: | Anticipated, Please see attached H2S Plan                                       |
| Estimated BHP:    | ±3,960 psi  |

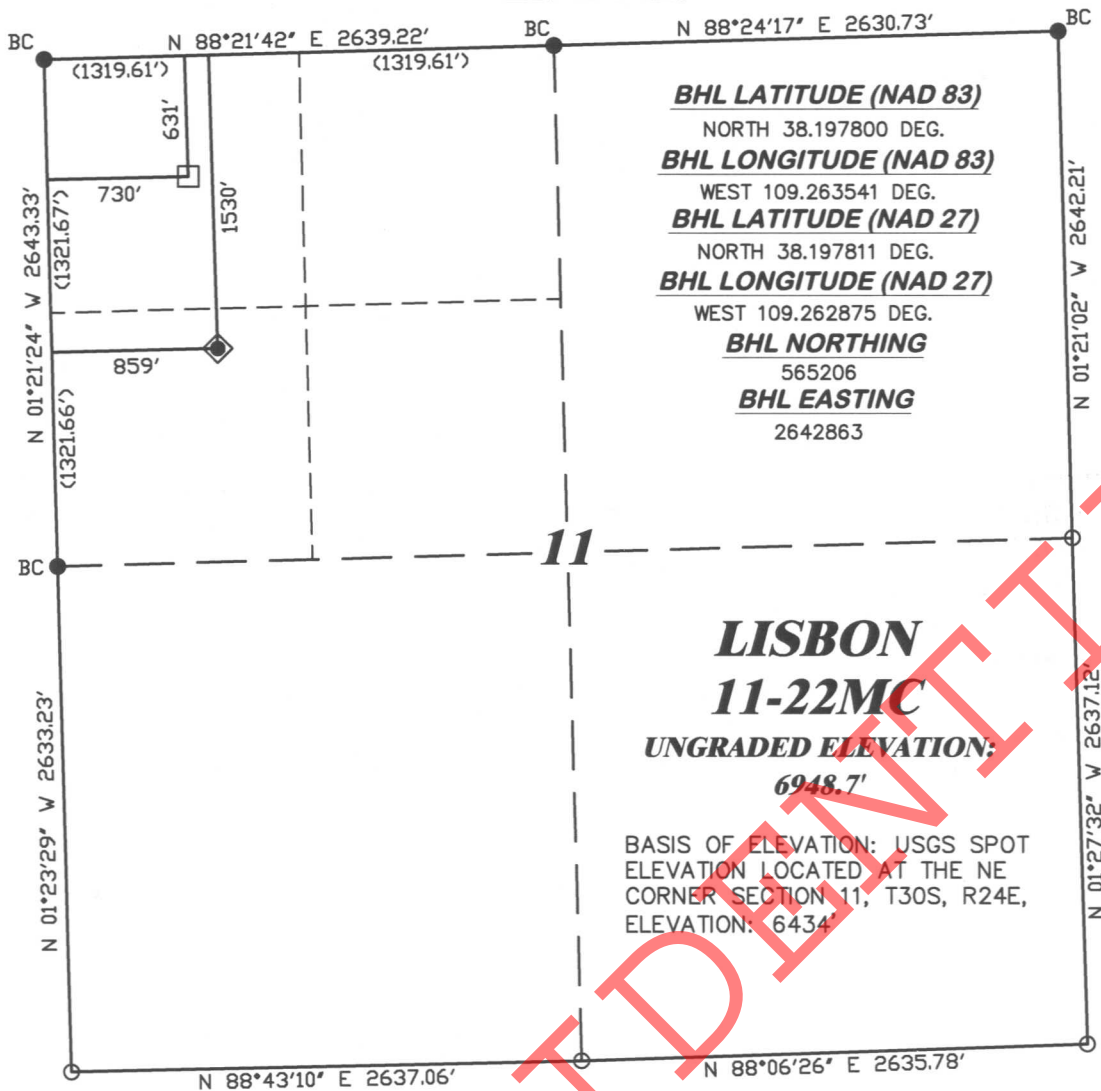
### COMPLETION

The location pad will be sufficient size to accommodate all completion activities and equipment. A string of 2-3/8", 4.7", N-80, EUE 8rnd will be run as production tubing. A Sundry Notice (SN) will be submitted with a revised completion program if warranted.

Completion plans are to drill, log, case, and perforate the McCracken formation prior to fracture stimulation. The zone normally requires stimulation upon completion. Stimulation design is pending the results of formation height, permeability and porosity.

Plan to perforate the McCracken and Lynch formations with casing guns and stimulate down the 7" casing with gelled water and proppant.



**R. 24 E.**

SCALE 1" = 1000'

**T. 30 S.**

**BHL LATITUDE (NAD 83)**  
NORTH 38.197800 DEG.  
**BHL LONGITUDE (NAD 83)**  
WEST 109.263541 DEG.  
**BHL LATITUDE (NAD 27)**  
NORTH 38.197811 DEG.  
**BHL LONGITUDE (NAD 27)**  
WEST 109.262875 DEG.  
**BHL NORTHING**  
565206  
**BHL EASTING**  
2642863

**SHL LATITUDE (NAD 83)**  
NORTH 38.195332 DEG.  
**SHL LONGITUDE (NAD 83)**  
WEST 109.263093 DEG.  
**SHL LATITUDE (NAD 27)**  
NORTH 38.195342 DEG.  
**SHL LONGITUDE (NAD 27)**  
WEST 109.262426 DEG.  
**NORTHING**  
564310.54  
**EASTING**  
2643013.48

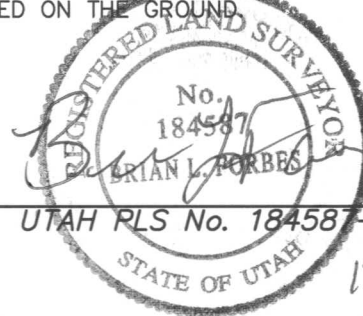
**DATUM**  
SPCS UTS (NAD 27)

**SURVEYOR'S STATEMENT**

I, BRIAN L. FORBES, OF ROCK SPRINGS, WYOMING, HEREBY STATE: THIS MAP WAS MADE FROM NOTES TAKEN DURING AN ACTUAL FIELD SURVEY DONE UNDER MY DIRECT SUPERVISION ON NOVEMBER 1, 2010 AND THAT THIS PLAT CORRECTLY SHOWS THE LOCATION OF LISBON 11-22MC AS STAKED ON THE GROUND.

**LEGEND**

- ◆ WELL LOCATION
- BOTTOM HOLE LOC. (APPROX)
- FOUND MONUMENT
- ▲ PREVIOUSLY FOUND MONUMENT
- CALCULATED CORNER

**RIFFIN & ASSOCIATES, INC.**

(307) 362-5028

1414 ELK ST., ROCK SPRINGS, WY 82901

**PLAT OF DRILLING LOCATION**  
**FOR**  
**PATARA OIL & GAS, LLC.**

**1530' F/NL & 859' F/WL, SWNW, SECTION 11,**  
**T. 30 S., R. 24 E., SLBM**  
**SAN JUAN COUNTY, UTAH**

DRAWN: 10/19/10 - MMM

SCALE: 1" = 1000'

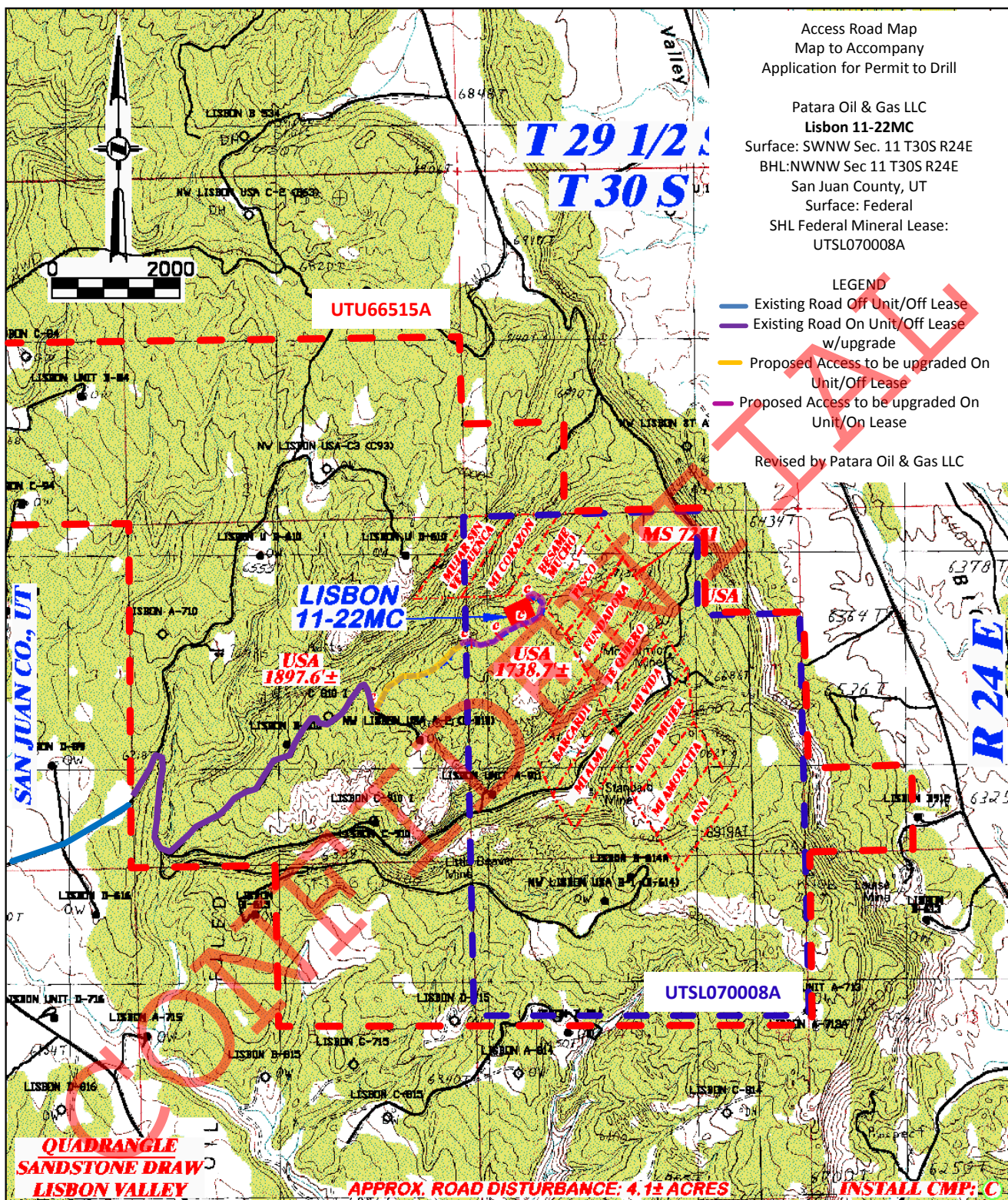
REVISED: 12/21/11 - RAS

DRG JOB No. 18173

CORRECT LAT/LONG

EXHIBIT 1







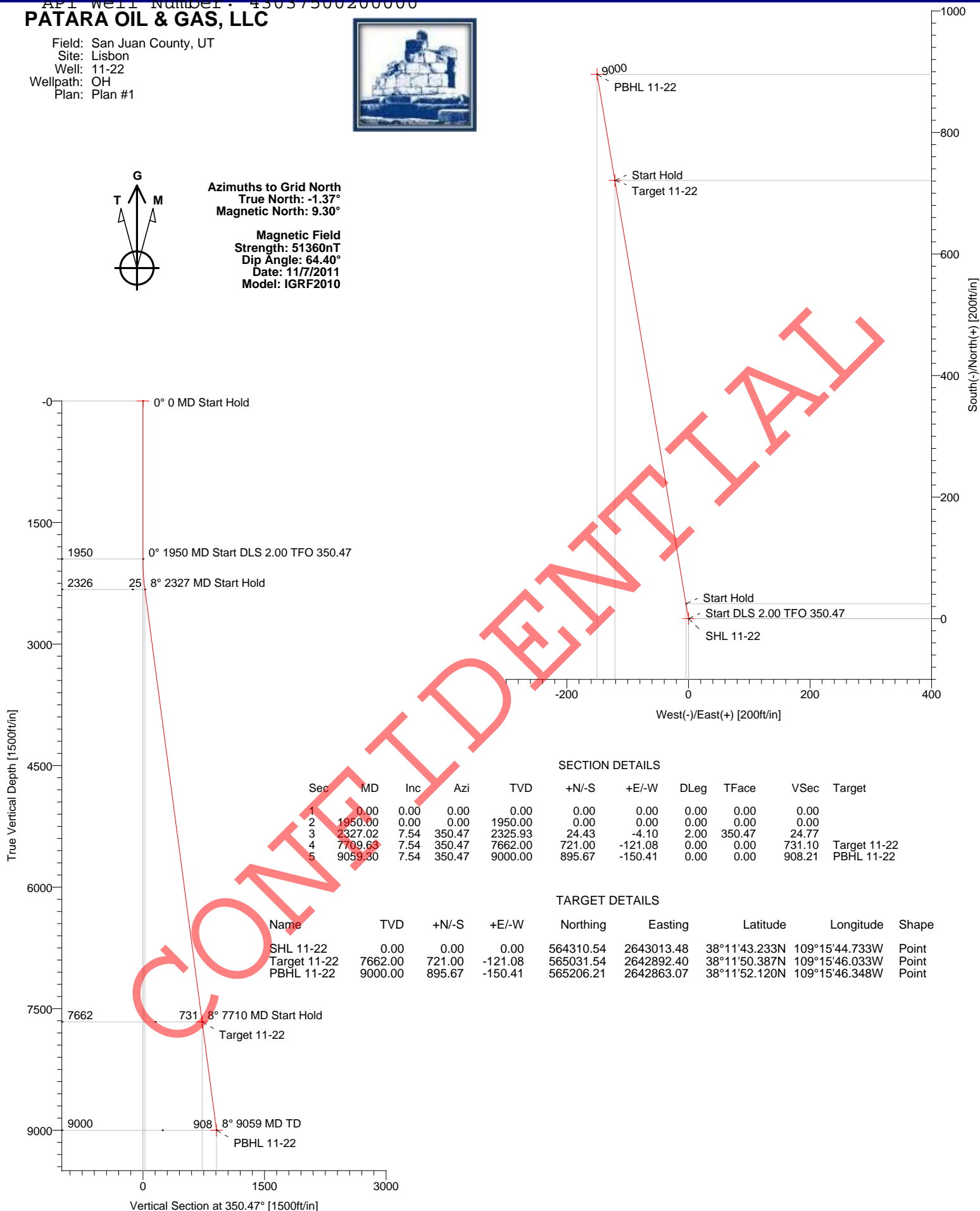
**PATARA OIL & GAS, LLC**

Field: San Juan County, UT  
 Site: Lisbon  
 Well: 11-22  
 Wellpath: OH  
 Plan: Plan #1



**Azimuths to Grid North**  
 True North: -1.37°  
 Magnetic North: 9.30°

**Magnetic Field**  
 Strength: 51360nT  
 Dip Angle: 64.40°  
 Date: 11/7/2011  
 Model: IGRF2010



# LEAM Drilling Systems, Inc.

## Planning Report

|                                       |  |   |                       |                   |
|---------------------------------------|--|---|-----------------------|-------------------|
| <b>Company:</b> PATARA OIL & GAS, LLC |  | <b>Date:</b> 11/7/2011                                      | <b>Time:</b> 16:13:06 | <b>Page:</b> 1    |
| <b>Field:</b> San Juan County, UT     |  | <b>Co-ordinate(NE) Reference:</b> Well: 11-22, Grid North   |                       |                   |
| <b>Site:</b> Lisbon                   |  | <b>Vertical (TVD) Reference:</b> GL 6942.6' 6942.6          |                       |                   |
| <b>Well:</b> 11-22                    |  | <b>Section (VS) Reference:</b> Well (0.00N,0.00E,350.47Azi) |                       |                   |
| <b>Wellpath:</b> OH                   |  | <b>Survey Calculation Method:</b> Minimum Curvature         |                       | <b>Db:</b> Adapti |

|  |                                       |
|--|---------------------------------------|
| <b>Field:</b> San Juan County, UT                        |                                       |
| <b>Map System:</b> US State Plane Coordinate System 1927 | <b>Map Zone:</b> Utah, Southern Zone  |
| <b>Geo Datum:</b> NAD27 (Clarke 1866)                    | <b>Coordinate System:</b> Well Centre |
| <b>Sys Datum:</b> Mean Sea Level                         | <b>Geomagnetic Model:</b> IGRF2010    |

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| <b>Site:</b> Lisbon                  |                                   |
| <b>Site Position:</b>                | <b>Northing:</b> 562837.20 ft     |
| <b>From:</b> Geographic              | <b>Easting:</b> 2640002.95 ft     |
| <b>Position Uncertainty:</b> 0.00 ft | <b>Latitude:</b> 38 11 29.382 N   |
| <b>Ground Level:</b> 6505.50 ft      | <b>Longitude:</b> 109 16 22.872 W |
|                                      | <b>North Reference:</b> Grid      |
|                                      | <b>Grid Convergence:</b> 1.36 deg |

|                                      |                                |                                   |  |
|--------------------------------------|--------------------------------|-----------------------------------|--|
| <b>Well:</b> 11-22                   |                                | <b>Slot Name:</b>                 |  |
| <b>Well Position:</b>                | <b>Northing:</b> 564310.54 ft  | <b>Latitude:</b> 38 11 43.233 N   |  |
| <b>+N/-S</b> 1473.34 ft              | <b>Easting :</b> 2643013.48 ft | <b>Longitude:</b> 109 15 44.733 W |  |
| <b>+E/-W</b> 3010.53 ft              |                                |                                   |  |
| <b>Position Uncertainty:</b> 0.00 ft |                                |                                   |  |

|                                  |                          |   |                  |
|----------------------------------|--------------------------|---|------------------|
| <b>Wellpath:</b> OH              |                          | <b>Drilled From:</b> Surface              |                  |
| <b>Current Datum:</b> GL 6942.6' | <b>Height</b> 6942.60 ft | <b>Tie-on Depth:</b> 0.00 ft              |                  |
| <b>Magnetic Data:</b> 11/7/2011  |                          | <b>Above System Datum:</b> Mean Sea Level |                  |
| <b>Field Strength:</b> 51360 nT  |                          | <b>Declination:</b> 10.67 deg             |                  |
| <b>Vertical Section:</b>         |                          | <b>Mag Dip Angle:</b> 64.40 deg           |                  |
| <b>Depth From (TVD)</b>          | <b>+N/-S</b>             | <b>+E/-W</b>                              | <b>Direction</b> |
| ft                               | ft                       | ft  | deg              |
| 7662.00                          | 0.00                     | 0.00                                      | 350.47           |

|                      |                                 |
|----------------------|---------------------------------|
| <b>Plan:</b> Plan #1 | <b>Date Composed:</b> 11/7/2011 |
| <b>Principal:</b> No | <b>Version:</b> 1               |
|                      | <b>Tied-to:</b> User Defined    |

| Plan Section Information |             |             |           |             |             |                  |                    |                   |            |              |
|--------------------------|-------------|-------------|-----------|-------------|-------------|------------------|--------------------|-------------------|------------|--------------|
| MD<br>ft                 | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | TFO<br>deg | Target       |
| 0.00                     | 0.00        | 0.00        | 0.00      | 0.00        | 0.00        | 0.00             | 0.00               | 0.00              | 0.00       |              |
| 1950.00                  | 0.00        | 0.00        | 1950.00   | 0.00        | 0.00        | 0.00             | 0.00               | 0.00              | 0.00       |              |
| 2327.02                  | 7.54        | 350.47      | 2325.93   | 24.43       | -4.10       | 2.00             | 2.00               | -2.53             | 350.47     |              |
| 7709.63                  | 7.54        | 350.47      | 7662.00   | 721.00      | -121.08     | 0.00             | 0.00               | 0.00              | 0.00       | Target 11-22 |
| 9059.30                  | 7.54        | 350.47      | 9000.00   | 895.67      | -150.41     | 0.00             | 0.00               | 0.00              | 0.00       | PBHL 11-22   |

| Survey   |             |             |           |           |           |          |                  |                    |                   |              |
|----------|-------------|-------------|-----------|-----------|-----------|----------|------------------|--------------------|-------------------|--------------|
| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | N/S<br>ft | E/W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | Tool/Comment |
| 1950.00  | 0.00        | 0.00        | 1950.00   | 0.00      | 0.00      | 0.00     | 0.00             | 0.00               | 0.00              |              |
| 2000.00  | 1.00        | 350.47      | 2000.00   | 0.43      | -0.07     | 0.44     | 2.00             | 2.00               | 0.00              |              |
| 2100.00  | 3.00        | 350.47      | 2099.93   | 3.87      | -0.65     | 3.93     | 2.00             | 2.00               | 0.00              |              |
| 2200.00  | 5.00        | 350.47      | 2199.68   | 10.75     | -1.81     | 10.90    | 2.00             | 2.00               | 0.00              |              |
| 2300.00  | 7.00        | 350.47      | 2299.13   | 21.06     | -3.54     | 21.35    | 2.00             | 2.00               | 0.00              |              |
| 2327.02  | 7.54        | 350.47      | 2325.93   | 24.43     | -4.10     | 24.77    | 2.00             | 2.00               | 0.00              |              |
| 2400.00  | 7.54        | 350.47      | 2398.28   | 33.88     | -5.69     | 34.35    | 0.00             | 0.00               | 0.00              |              |
| 2500.00  | 7.54        | 350.47      | 2497.42   | 46.82     | -7.86     | 47.47    | 0.00             | 0.00               | 0.00              |              |
| 2600.00  | 7.54        | 350.47      | 2596.55   | 59.76     | -10.04    | 60.59    | 0.00             | 0.00               | 0.00              |              |
| 2700.00  | 7.54        | 350.47      | 2695.69   | 72.70     | -12.21    | 73.72    | 0.00             | 0.00               | 0.00              |              |
| 2800.00  | 7.54        | 350.47      | 2794.82   | 85.64     | -14.38    | 86.84    | 0.00             | 0.00               | 0.00              |              |
| 2900.00  | 7.54        | 350.47      | 2893.96   | 98.58     | -16.56    | 99.96    | 0.00             | 0.00               | 0.00              |              |
| 3000.00  | 7.54        | 350.47      | 2993.09   | 111.52    | -18.73    | 113.08   | 0.00             | 0.00               | 0.00              |              |
| 3100.00  | 7.54        | 350.47      | 3092.23   | 124.46    | -20.90    | 126.21   | 0.00             | 0.00               | 0.00              |              |
| 3200.00  | 7.54        | 350.47      | 3191.36   | 137.40    | -23.08    | 139.33   | 0.00             | 0.00               | 0.00              |              |
| 3300.00  | 7.54        | 350.47      | 3290.50   | 150.35    | -25.25    | 152.45   | 0.00             | 0.00               | 0.00              |              |

# LEAM Drilling Systems, Inc.

## Planning Report

**Company:** PATARA OIL & GAS, LLC  
**Field:** San Juan County, UT  
**Site:** Lisbon  
**Well:** 11-22  
**Wellpath:** OH

**Date:** 11/7/2011  
**Co-ordinate(NE) Reference:** Well: 11-22, Grid North  
**Vertical (TVD) Reference:** GL 6942.6' 6942.6  
**Section (VS) Reference:** Well (0.00N,0.00E,350.47Azi)  
**Survey Calculation Method:** Minimum Curvature  
**Db:** Adapti

**Page:** 2

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | N/S<br>ft | E/W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | Tool/Comment |
|----------|-------------|-------------|-----------|-----------|-----------|----------|------------------|--------------------|-------------------|--------------|
| 3400.00  | 7.54        | 350.47      | 3389.63   | 163.29    | -27.42    | 165.57   | 0.00             | 0.00               | 0.00              |              |
| 3500.00  | 7.54        | 350.47      | 3488.77   | 176.23    | -29.59    | 178.70   | 0.00             | 0.00               | 0.00              |              |
| 3600.00  | 7.54        | 350.47      | 3587.90   | 189.17    | -31.77    | 191.82   | 0.00             | 0.00               | 0.00              |              |
| 3700.00  | 7.54        | 350.47      | 3687.04   | 202.11    | -33.94    | 204.94   | 0.00             | 0.00               | 0.00              |              |
| 3800.00  | 7.54        | 350.47      | 3786.18   | 215.05    | -36.11    | 218.06   | 0.00             | 0.00               | 0.00              |              |
| 3900.00  | 7.54        | 350.47      | 3885.31   | 227.99    | -38.29    | 231.19   | 0.00             | 0.00               | 0.00              |              |
| 4000.00  | 7.54        | 350.47      | 3984.45   | 240.93    | -40.46    | 244.31   | 0.00             | 0.00               | 0.00              |              |
| 4100.00  | 7.54        | 350.47      | 4083.58   | 253.88    | -42.63    | 257.43   | 0.00             | 0.00               | 0.00              |              |
| 4200.00  | 7.54        | 350.47      | 4182.72   | 266.82    | -44.81    | 270.55   | 0.00             | 0.00               | 0.00              |              |
| 4300.00  | 7.54        | 350.47      | 4281.85   | 279.76    | -46.98    | 283.68   | 0.00             | 0.00               | 0.00              |              |
| 4400.00  | 7.54        | 350.47      | 4380.99   | 292.70    | -49.15    | 296.80   | 0.00             | 0.00               | 0.00              |              |
| 4500.00  | 7.54        | 350.47      | 4480.12   | 305.64    | -51.33    | 309.92   | 0.00             | 0.00               | 0.00              |              |
| 4600.00  | 7.54        | 350.47      | 4579.26   | 318.58    | -53.50    | 323.04   | 0.00             | 0.00               | 0.00              |              |
| 4700.00  | 7.54        | 350.47      | 4678.39   | 331.52    | -55.67    | 336.16   | 0.00             | 0.00               | 0.00              |              |
| 4800.00  | 7.54        | 350.47      | 4777.53   | 344.46    | -57.85    | 349.29   | 0.00             | 0.00               | 0.00              |              |
| 4900.00  | 7.54        | 350.47      | 4876.66   | 357.40    | -60.02    | 362.41   | 0.00             | 0.00               | 0.00              |              |
| 5000.00  | 7.54        | 350.47      | 4975.80   | 370.35    | -62.19    | 375.53   | 0.00             | 0.00               | 0.00              |              |
| 5100.00  | 7.54        | 350.47      | 5074.93   | 383.29    | -64.37    | 388.65   | 0.00             | 0.00               | 0.00              |              |
| 5200.00  | 7.54        | 350.47      | 5174.07   | 396.23    | -66.54    | 401.78   | 0.00             | 0.00               | 0.00              |              |
| 5300.00  | 7.54        | 350.47      | 5273.20   | 409.17    | -68.71    | 414.90   | 0.00             | 0.00               | 0.00              |              |
| 5400.00  | 7.54        | 350.47      | 5372.34   | 422.11    | -70.89    | 428.02   | 0.00             | 0.00               | 0.00              |              |
| 5500.00  | 7.54        | 350.47      | 5471.48   | 435.05    | -73.06    | 441.14   | 0.00             | 0.00               | 0.00              |              |
| 5600.00  | 7.54        | 350.47      | 5570.61   | 447.99    | -75.23    | 454.27   | 0.00             | 0.00               | 0.00              |              |
| 5700.00  | 7.54        | 350.47      | 5669.75   | 460.93    | -77.41    | 467.39   | 0.00             | 0.00               | 0.00              |              |
| 5800.00  | 7.54        | 350.47      | 5768.88   | 473.88    | -79.58    | 480.51   | 0.00             | 0.00               | 0.00              |              |
| 5900.00  | 7.54        | 350.47      | 5868.02   | 486.82    | -81.75    | 493.63   | 0.00             | 0.00               | 0.00              |              |
| 6000.00  | 7.54        | 350.47      | 5967.15   | 499.76    | -83.93    | 506.76   | 0.00             | 0.00               | 0.00              |              |
| 6100.00  | 7.54        | 350.47      | 6066.29   | 512.70    | -86.10    | 519.88   | 0.00             | 0.00               | 0.00              |              |
| 6200.00  | 7.54        | 350.47      | 6165.42   | 525.64    | -88.27    | 533.00   | 0.00             | 0.00               | 0.00              |              |
| 6300.00  | 7.54        | 350.47      | 6264.56   | 538.58    | -90.45    | 546.12   | 0.00             | 0.00               | 0.00              |              |
| 6400.00  | 7.54        | 350.47      | 6363.69   | 551.52    | -92.62    | 559.25   | 0.00             | 0.00               | 0.00              |              |
| 6500.00  | 7.54        | 350.47      | 6462.83   | 564.46    | -94.79    | 572.37   | 0.00             | 0.00               | 0.00              |              |
| 6600.00  | 7.54        | 350.47      | 6561.96   | 577.40    | -96.97    | 585.49   | 0.00             | 0.00               | 0.00              |              |
| 6700.00  | 7.54        | 350.47      | 6661.10   | 590.35    | -99.14    | 598.61   | 0.00             | 0.00               | 0.00              |              |
| 6800.00  | 7.54        | 350.47      | 6760.23   | 603.29    | -101.31   | 611.73   | 0.00             | 0.00               | 0.00              |              |
| 6900.00  | 7.54        | 350.47      | 6859.37   | 616.23    | -103.49   | 624.86   | 0.00             | 0.00               | 0.00              |              |
| 7000.00  | 7.54        | 350.47      | 6958.50   | 629.17    | -105.66   | 637.98   | 0.00             | 0.00               | 0.00              |              |
| 7100.00  | 7.54        | 350.47      | 7057.64   | 642.11    | -107.83   | 651.10   | 0.00             | 0.00               | 0.00              |              |
| 7200.00  | 7.54        | 350.47      | 7156.77   | 655.05    | -110.01   | 664.22   | 0.00             | 0.00               | 0.00              |              |
| 7300.00  | 7.54        | 350.47      | 7255.91   | 667.99    | -112.18   | 677.35   | 0.00             | 0.00               | 0.00              |              |
| 7400.00  | 7.54        | 350.47      | 7355.05   | 680.93    | -114.35   | 690.47   | 0.00             | 0.00               | 0.00              |              |
| 7500.00  | 7.54        | 350.47      | 7454.18   | 693.88    | -116.53   | 703.59   | 0.00             | 0.00               | 0.00              |              |
| 7600.00  | 7.54        | 350.47      | 7553.32   | 706.82    | -118.70   | 716.71   | 0.00             | 0.00               | 0.00              |              |
| 7709.63  | 7.54        | 350.47      | 7662.00   | 721.00    | -121.08   | 731.10   | 0.00             | 0.00               | 0.00              | Target 11-22 |
| 7800.00  | 7.54        | 350.47      | 7751.59   | 732.70    | -123.05   | 742.96   | 0.00             | 0.00               | 0.00              |              |
| 7900.00  | 7.54        | 350.47      | 7850.72   | 745.64    | -125.22   | 756.08   | 0.00             | 0.00               | 0.00              |              |
| 8000.00  | 7.54        | 350.47      | 7949.86   | 758.58    | -127.39   | 769.20   | 0.00             | 0.00               | 0.00              |              |
| 8100.00  | 7.54        | 350.47      | 8048.99   | 771.52    | -129.57   | 782.33   | 0.00             | 0.00               | 0.00              |              |
| 8200.00  | 7.54        | 350.47      | 8148.13   | 784.46    | -131.74   | 795.45   | 0.00             | 0.00               | 0.00              |              |
| 8300.00  | 7.54        | 350.47      | 8247.26   | 797.40    | -133.91   | 808.57   | 0.00             | 0.00               | 0.00              |              |
| 8400.00  | 7.54        | 350.47      | 8346.40   | 810.35    | -136.09   | 821.69   | 0.00             | 0.00               | 0.00              |              |
| 8500.00  | 7.54        | 350.47      | 8445.53   | 823.29    | -138.26   | 834.82   | 0.00             | 0.00               | 0.00              |              |
| 8600.00  | 7.54        | 350.47      | 8544.67   | 836.23    | -140.43   | 847.94   | 0.00             | 0.00               | 0.00              |              |

# LEAM Drilling Systems, Inc.

## Planning Report

|                                       |   |                       |                |
|---------------------------------------|---|-----------------------|----------------|
| <b>Company:</b> PATARA OIL & GAS, LLC | <b>Date:</b> 11/7/2011                                      | <b>Time:</b> 16:13:06 | <b>Page:</b> 3 |
| <b>Field:</b> San Juan County, UT     | <b>Co-ordinate(NE) Reference:</b> Well: 11-22, Grid North   |                       |                |
| <b>Site:</b> Lisbon                   | <b>Vertical (TVD) Reference:</b> GL 6942.6' 6942.6          |                       |                |
| <b>Well:</b> 11-22                    | <b>Section (VS) Reference:</b> Well (0.00N,0.00E,350.47Azi) |                       |                |
| <b>Wellpath:</b> OH                   | <b>Survey Calculation Method:</b> Minimum Curvature         | <b>Db:</b> Adapti     |                |

**Survey**

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | N/S<br>ft | E/W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | Tool/Comment |
|----------|-------------|-------------|-----------|-----------|-----------|----------|------------------|--------------------|-------------------|--------------|
| 8700.00  | 7.54        | 350.47      | 8643.80   | 849.17    | -142.61   | 861.06   | 0.00             | 0.00               | 0.00              |              |
| 8800.00  | 7.54        | 350.47      | 8742.94   | 862.11    | -144.78   | 874.18   | 0.00             | 0.00               | 0.00              |              |
| 8900.00  | 7.54        | 350.47      | 8842.07   | 875.05    | -146.95   | 887.30   | 0.00             | 0.00               | 0.00              |              |
| 9000.00  | 7.54        | 350.47      | 8941.21   | 887.99    | -149.13   | 900.43   | 0.00             | 0.00               | 0.00              |              |
| 9059.30  | 7.54        | 350.47      | 9000.00   | 895.67    | -150.41   | 908.21   | 0.00             | 0.00               | 0.00              | PBHL 11-22   |

**Targets**

| Name             | Description<br>Dip. | Dir. | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | Map<br>Northing<br>ft | Map<br>Easting<br>ft | <---- Latitude ----> |     |        | <--- Longitude ---> |     |             |
|------------------|---------------------|------|-----------|-------------|-------------|-----------------------|----------------------|----------------------|-----|--------|---------------------|-----|-------------|
|                  |                     |      |           |             |             |                       |                      | Deg                  | Min | Sec    | Deg                 | Min | Sec         |
| SHL 11-22        |                     |      | 0.00      | 0.00        | 0.00        | 564310.54             | 2643013.48           | 38                   | 11  | 43.233 | N                   | 109 | 15 44.733 W |
| Target 11-22     |                     |      | 7662.00   | 721.00      | -121.08     | 565031.54             | 2642892.40           | 38                   | 11  | 50.387 | N                   | 109 | 15 46.033 W |
| -Plan hit target |                     |      |           |             |             |                       |                      |                      |     |        |                     |     |             |
| PBHL 11-22       |                     |      | 9000.00   | 895.67      | -150.41     | 565206.21             | 2642863.07           | 38                   | 11  | 52.120 | N                   | 109 | 15 46.348 W |
| -Plan hit target |                     |      |           |             |             |                       |                      |                      |     |        |                     |     |             |

**Casing Points**

| MD | TVD | Diameter | Hole Size | Name |
|----|-----|----------|-----------|------|
|    |     |          |           |      |

**Formations**

| MD | TVD | Formations | Lithology | Dip Angle | Dip Direction |
|----|-----|------------|-----------|-----------|---------------|
|    |     |            |           |           |               |

Patara Oil & Gas LLC

**Lisbon 11-22MC**

SHL: 1,530' FNL 859' FWL

SW/4 NW/4 SEC 11 TWN 30S RNG 24E

BHL: 631' FNL 730' FWL

NW/4 NW/4 SEC 11 TWN 30S RNG 24E

San Juan County, UT

Federal Lease #: UTSL70008A

CONFIDENTIAL

Operator Certification

I hereby certify that Patara Oil & Gas LLC and its contractors and sub-contractors are responsible for the operations conducted under this application subject to the terms and conditions of the mineral lease. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Patara Oil & Gas LLC under their statewide bond, BLM Bond No. UTB000428.

I hereby certify that I or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved, I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

OPERATORS REPRESENTATIVES

Patara Oil & Gas LLC

600 17<sup>th</sup> Street, Suite 1900S

Denver, CO 80202

Phone: 713-579-6000

Fax: 713-579-6611

Danielle Gavito - 303-563-5378

Ryan Calhoun - 303-563-5373

EMPLOYEE AGENT

Danielle Gavito - 303-563-5378



Danielle Gavito

Executed this the 22<sup>nd</sup> day of December, 2011



Patara Oil & Gas LLC  
**Lisbon 11-22MC**  
SHL: 1,530' FNL 859' FWL  
SW/4 NW/4 SEC 11 TWN 30S RNG 24E  
BHL: 631' FNL 730' FWL  
NW/4 NW/4 SEC 11 TWN 30S RNG 24E  
San Juan County, UT  
Federal Lease #: UTSL070008A

CONFIDENTIAL

Onshore Oil & Gas Order No. 1  
Twelve Point Surface Use Plan of Operations

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated per Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents.

Patara agrees to abide by all applicant committed measures in the Environmental Assessment

The proposed wellsite will be an exploration well to be drilled from a new location, located in the SW/4 NW/4 of SEC 11 TWN 30S RNG 24E of San Juan County, Utah. The wellsite for the Lisbon 11-22MC was staked at 1,530' FNL 859' FWL, SW/4 NW/4 of SEC 11 TWN 30S RNG 24E on November 1, 2010, by Clement R. Williams, surveyor. The bottom hole location is 631' FNL and 730' FWL (NW/4 NW/4) of Sec. 11 T30S R24E. Lisbon McCracken Unit identified by Serial Register No. UTU66515A.

A Notice of Staking (NOS) was submitted to The Bureau of Land Management (BLM) in Moab, Utah via the Well Information System (WIS). This application included an onsite meeting conducted by the BLM for the subject wellsite, held on May 24, 2011, where specifics involving the proposed location were discussed. In attendance; Theresa Garcia, Danny White, Dee Foote, Kevin Stephens, and Keith Dana - all with Patara Oil & Gas, Cliff Giffen with the Bureau of Land Management Monticello Field Office, Bonnie Carson - Smiling Lake, and Ron Renke - D.R. Griffin. Specific requests of the BLM have been addressed within this plan.

**A. EXISTING ROADWAYS**

The proposed wellsite is located approximately 8 miles west of the town of La Sal in San Juan County, Utah. The location can be reached by following the directions below.

1. From the town of La Sal Utah, travel westerly on State Highway 46 for approximately 7.6 miles. Turn left onto Highway 191 and travel southerly for 8.2 miles. Turn left onto C.R.114 (also known as Steens Road) and drive southeasterly 5.9 miles until the end of pavement. Turn right onto C.R. 114 and drive southerly then northeasterly for 1.2 miles. Turn left onto proposed access road and drive northeasterly for 0.7 miles to reach the proposed well site.

2. For access roads, please refer to Exhibit 2, 2A, 2B, 4, Exhibit A and Exhibit 5.
3. Existing roads within a 1-mile radius are shown on Exhibits 4, 4B and 5, and consist of a dirt road that could provide access to the proposed location. Per the onsite on May 24, 2011, Patara will install a Class III road with all- weather surface. San Juan County Road 114 (AKA Steens Road) is an all-weather Class III. Beginning at the turn off from C.R. 114, 3,635 feet of existing two track will be upgraded. 1,897 feet of the upgrade will be in section 10 and 1,738 feet will be upgraded in section 11. Several culverts will be required for existing two track road up-grades. See Exhibit 4 for culvert placement. All road upgrades will be completed within the existing disturbance.
4. Existing roads will be maintained and kept in good repair during all drilling and completion operations.

#### **B. NEW AND RECONSTRUCTED ACCESS ROADS**

Please see Exhibit 4 Proposed Access Road. This Application for Permit to Drill shall also serve as an application for any ROW going from County Road 114 to the new construction of the proposed access road connecting the existing service road to the pad.

1,738' – Section 11 T30S R24E, BLM, on lease on Unit; 1,897' – Section 10 T30S R24E, BLM off lease on Unit will be considered new construction per the onsite and upgraded to a Class III surface.

1. This proposed access route will utilize an existing two track service road. The roadway will be upgraded to BLM standards using appropriate Best Management Practices. Road construction on public lands shall meet the minimum standards listed in the BLM Manual Section 9113 and shall be constructed under the direction of a qualified construction supervisor.
2. Width maximum – 35' overall right-of-way with a 14'–16' road running surface, crowned and ditched and/or sloped and dipped. Traveling off of the 35' right-of-way will be prohibited.
3. Maximum grade – Maximum grades will not exceed BLM standards. See Exhibit 4A for plan and profile. Borrow ditches are to be backsloped 3:1 or shallower.
4. Drainage design – the access road will be crowned and ditched or sloped and dipped as necessary to provide proper drainage along the access road route.
5. Culverts – culverts, measuring from 18" x 30' to 30" x 34', will be installed on the access road as shown on Exhibits 4 and 4A.
6. Surface materials – Surfacing material to consist of native material from the road crown. Topsoil is to be segregated, protected, and stabilized until needed for reclamation purposes. During reclamation, backslope of borrow ditch will be re-seeded per Section 11 of this Surface Use Plan of Operations (SUPO). If any additional surfacing materials are required they will be purchased from a local contractor having a permitted source of materials in the area.
7. Road maintenance – during both the drilling and production phases of operations; the road surface and shoulders will be kept in a safe, legal condition and will be maintained in accordance with the original construction standards. The access road right-of-way will be kept free of trash during operations.

8. Dust will be controlled on the roads and locations during construction and drilling by periodic watering of the roads and locations or application of various dust agents, surfactants and road surfacing material. Dust agents and surfactants (except water) will require pre-approval before use on BLM lands.
9. Noxious weeds, which may be introduced due to soil disturbance associated with the proposed lease operations, will be treated by methods to be approved by the Authorized Officer and in compliance with the joint BLM/Forest Service Noxious and Invasive Weed Management Plan for Oil and Gas Operators.

C. LOCATION OF EXISTING WELLS WITHIN A TWO-MILE RADIUS

|                    |             |
|--------------------|-------------|
| Proposed           | SEE TABLE 1 |
| Drilling           | NONE        |
| Abandoned          | SEE TABLE 1 |
| Disposal/injection | SEE TABLE 1 |
| Shut-In            | SEE TABLE 1 |
| Producing          | SEE TABLE 1 |

The nearby well data has been taken from the UDOGM website on December 8, 2011.

D. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES

1. BLM will be contacted prior to construction of production facilities. Please see Exhibit 2-B for anticipated production facilities layout. Existing specifications are as follows:
  - i. Dimensions of the pad are 375' x 225' = 84,375 ft<sup>2</sup> for drilling operations. Total disturbance is approximately 4.60 acres.
  - ii. Construction methods and materials will conform to BLM specifications. If warranted, additional surfacing material will be obtained from commercial sources or an approved borrow area.
  - iii. The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable, arrangements will be made to acquire appropriate materials from private sources.
  - iv. Traveled portion of production site will be gravel surfaced upon completion of production facility installation and prior to production. Site preparation for production will be done with standard exaction equipment. Salvaging and spreading of topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.
  - v. Production equipment will be painted light reflective colors to limit evaporation and waste of liquid hydrocarbons. All above ground permanent structures will be painted to blend with the surrounding landscape. The color specified is Pantone Supplemental Environmental Color Beetle (19-0312). To reduce the view of production facilities from visibility corridors and private residences, facilities will not be placed in

visually exposed locations (such as ridgelines and hilltops). Facilities required to comply with Occupation Health and Safety Act Rules and Regulations will be excluded from this painting requirement. The tallest structure will be no greater than 20' in height.

2. The rig layout, and pad layout plats for the site are illustrated on Exhibits 2, 2-A, 2-B, and Exhibit A.
3. The well from this pad is proposed as a flowing oil well. The proposed well pad lies on federal surface. If productive, the proposed facilities will include production equipment and flowlines. Guards will be installed around the well for protection of wildlife and livestock.
4. Patara shall protect all survey monuments, witness corners, reference monuments and bearing trees in the affected areas against disturbance during construction, operations, maintenance and termination of the facilities authorized herein. Patara shall immediately notify the authorized officer in the event that any corners, monuments or markers are disturbed or are anticipated to be disturbed. If any monuments, corner or accessories are destroyed, obliterated or damaged during construction, operation or maintenance, Patara shall secure the services of the Registered Land Surveyor to restore the disturbed monuments, corner or accessories, at the same location, using surveying procedures found in the Manual of Surveying Instructions for the Survey of Public Lands of the United States, latest edition.
5. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road right-of-way and any additional areas as specified in the approved Application for Permit to Drill.
6. Topsoil will be stripped to a minimum depth of 6" or to the depth of all growth medium above sub-soils. Topsoil storage will take the form of a perimeter berm and be seeded to maintain viability. Stored topsoils will be seeded within 48 hours of completed pad construction.
7. The cut and fill slopes will be protected against erosion with measures such as water bars, lateral furrows, or other measures approved by the Authorized Officer. Woody vegetative debris, weed free straw bales and/or a fabric silt fence will be used at the toe of the fill slopes.  
Patara will be responsible for road maintenance from the beginning to completion of operations.

#### E. LOCATION AND TYPES OF WATER SUPPLY

- A) Water that will be used for drilling will be transported by truck from either Redd-Agra or the Lisbon Gas Plant under existing permits. Water that will be used for completions will be supplied by Reams Construction from Naturita, Colorado under existing permits. If a closer water source is identified and deemed usable, Patara will notify the Authorized Officer (AO) with the necessary information.
- B) Anticipated water use is as follows:  
Drilling water requirements are anticipated to be approximately 10,000bbls.  
Completion water requirements are anticipated to be approximately 1,500 to

3,000bbls.

Road watering will be done only if conditions dictate to control fugitive dust emissions.

F. SOURCE OF CONSTRUCTION MATERIALS

- A) Construction materials will consist of native materials from borrow ditches and location areas.
- B) Surfacing materials will be obtained from available permitted sources, if needed, and consist of pit gravel. No construction materials will be removed from Federal land without prior approval.

G. METHODS FOR HANDLING WASTE MATERIALS

1. Drill cuttings will be transported offsite to an approved disposal site when dry.
2. A closed loop system will be used, no reserve pit required.
3. Solids/blooiie pit layout is illustrated on Exhibits 2, 2A, 2B.
4. The solids/blooiie pit will be lined. It will be lined with a synthetic liner 12 mil or thicker. The solids/blooiie pit liner shall be made of any manmade synthetic material of sufficient size and qualities to sustain a hydraulic conductivity no greater than  $1 \times 10^{-7}$  cm/sec after installation and which is sufficiently reinforced to withstand normal wear and tear associated with the installation and pit use thereof. The liner shall be chemically compatible with all substances that may be put into the pit.
5. The solids/blooiie pit will not be fenced during drilling operations. Upon rig release, the pit will be fenced and netted until backfilled and closed.
6. Flare pit for air drilling will be located minimum 100' from wellbore.
7. Produced fluids – fluid produced during completion and testing operations will be placed in test tanks on the location.
8. Sewage – sewage disposal facilities will be in accordance with State and Local Regulations. Sewage may not be buried on location or put in a borehole. Utah Department of Health (UDH) Regulations prevent this unless a UDH Permit is obtained.
9. Garbage, trash and other waste materials will be collected in a portable, self-contained and fully-enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill. No trash will be burned on location or placed in pits or bore holes.
10. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No adverse materials will be left on the location. Any open pits will be fenced to preclude entry by livestock and maintained until such time as the pits are backfilled.
11. Upon release of the drilling rig, rathole and mousehole will be filled. Debris and equipment not required for production will be removed.
12. Waste from the solids pit will be transported to an approved disposal facility. If Patara decides to solidify the pit at a later date, a SN will be submitted to the BLM notifying them of the planned procedure.

13. An emissions inventory will be provided under separate cover by Golder Associates Inc.

#### H. ANCILLARY FACILITIES

1. No ancillary facilities are anticipated.

#### I. WELLSITE LAYOUT

1. The attached Exhibits 2 and 2A specify the drill site layout as proposed. Cross sections (Exhibit 3) have been drafted to visualize the planned cuts and fills across the location. The well will be drilled from a newly constructed pad.
2. Roads and well production equipment, such as tanks, treaters, separators, vents, electrical boxes, and equipment associated with pipeline operation, will be placed on location so as to permit maximum interim reclamation of disturbed areas.
3. No permanent living facilities are planned (refer to the rig location layout plat Exhibit 2). One to four (1 -4) trailers may be required on location during drilling operations, for use by the rig crew. These trailers will be placed adjacent to the drilling rig, and a safe minimum distance from all operational equipment.
4. Topsoil will be stockpiled adjacent to the wellsite within the maximum disturbed area shown on the wellsite plat. Topsoil and spoils pile will be clearly separated as shown on Exhibits 2, 2A, and 2B.

#### PIPELINES AND FLOWLINES

Please see Exhibit A & A1, Pipeline Exhibits.

*A separate Right-of-Way (ROW) application for the pipeline route will not be necessary as the entire pipeline route falls within the mineral lease.*

1. No blading of the surface will be allowed for the pipelines.
2. Pipelines will be constructed of steel and include a 2" fuel gas line that goes to the Lisbon 11-21 tie in point, a 6" product line, and a 4" gas lift line.
3. There is an existing surface pipeline route containing one (1) 2" fuel gas line, one (1) 4" gas lift line and one (1) 6" product line located approximately 3,442 feet to the southeast of the location. Approximately 540 feet of new 2" fuel gas line, 6" product line, and 4" lift gas line will be installed from the existing lines to the new tie in point. Approximately 3,442 feet of new pipeline, 2" fuel gas, 6" product line, and 4" gas lift line, will be laid running from the wellhead to the new tie in point. The new pipeline will be installed along the proposed access route. Pipe laying equipment will be operated along the pipeline route during construction operations. No blading of the pipeline routes will be necessary.

#### J. SURFACE RECLAMATION

1. Production
  - i. Immediately upon well completion of all of the wells on the pad, the well pad location and surrounding areas(s) will be cleared of all debris, materials, trash and junk not required for production. These areas will be reseeded. Wellpad size will be reduced to minimum size necessary to conduct safe operations. Cuts and fills will be reduced to 3:1 or shallower.



- ii. Immediately upon well completion, any hydrocarbons on location shall be removed in accordance with Onshore Order #7. Solids/blooiie pit will be closed and backfilled as soon as the pit contents are dry enough to do so, or no later than 6 months after completion, per Onshore Order #1. A sundry notice will be filed with the BLM prior to commencement of activity. Solids/blooiie pit remaining open after this period will require written authorization of the AO.
  - iii. Before any dirt work to restore the location takes place, any pits will be completely dry and all cans, barrels, pipe, etc. will be removed. Other waste and spoil materials will be disposed of immediately upon completion of drilling and workover activities for well on the pad. Any hydrocarbon-laden debris located in the solids pit will be removed, and disposed of at an approved landfill site along with the pit liner. The pits will be backfilled with soils materials taken from location, and contoured to promote proper drainage.
  - iv. The portions of the cleared wellsite not needed for operational and safety purposes will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible.
  - v. Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted areas. The recontouring will restore as much of the original grades as possible, reducing the final reclamation disturbance required. Visual Resource Management, Stormwater Management & Revegetation requirements will all be taken into account when recontouring the site. After subsoils have been replaced and the site recontoured, the topsoil will be spread in a manner to maximize its redistribution and facilitate seedbed preparation. All areas of unstabilized soils and surfaces will undergo seeding according to the Bureau of Land Management habitat-based seed mixes and/or site-specified seed mix.
2. Interim or Final Reclamation (Production)
- i. For compacted areas, initial recontouring and seedbed preparation will include ripping to a minimum depth of 18-24 inches on 12-24 inch spacing. Where possible, rip will be done in two passes at perpendicular directions with the final pass on contour to promote snowmelt and rain infiltration and minimize the erosion potential. On sites with limited topsoil resources (less than 1" depth) or sites with undesirable subsoils (to prevent topsoil and subsoil mixing), compaction relief shall take place prior to topsoil redistribution. Compaction relief shall take place after mass rough grading has been accomplished. In cases where loose or erodable soils may be lost, compaction shall be introduced to subsoils and topsoils as necessary. Rough grading shall be accomplished in a manner that incorporates visual, stormwater and revegetation management needs. Ideally, interim reclamation should accomplish as much final reclamation as possible. When site conditions prevent this, future final reclamation



needs shall be taken into account. Other than micro-depressions created to support reclamation success, such as pitting or pocking, and terminal stormwater containments (designed to eventually silt themselves out of existence) and the pad stormwater/snow storage basins for stormwater management, no depressions will be left that will trap water or form ponds. Following contouring, all backfilled, ripped or otherwise disturbed surfaces shall be evenly covered with salvaged topsoil. When topsoil resources are in short supply, they shall be spread in the following priority; south facing slopes, west facing slopes, east facing slopes, north facing slopes, shallow slope areas, drainage swales and lastly containment bottoms. Final seedbed preparation includes scarifying such as disking, pitting, contour cultivating, raking or harrowing the redistributed topsoil prior to seeding. Seedbed may also be roller-packed, following the natural contours. If the area is to be broadcast-seeded or hydro-seeded, or if more than one season has elapsed since final seedbed preparation, scarification will be repeated no more than 24 hours before prior to seeding, to break up any soil crust that has formed and to enhance seed-to-soil contact.

If seed is drilled, it will be on contour, generally at a depth no greater than one-half inch (1/2), unless seed types require differently. In areas that cannot be drilled, seed will be broadcast at double the seeding rate and harrowed into soil if seeded more than 24 hours after seedbed prep.

On BLM lands, all disturbed areas shall be seeded with the specified mixture of Pure Live Seed (PLS), certified to be weed-free. To maintain quality, purity, germination and yield, only tested, certified seed for the current year, with a minimum germination rate of 80% and a minimum purity of 90% shall be used.

A proposed seed mixture for this location is:

3#/acre PLS – Indian ricegrass  
3#/acre PLS – Intermediate wheatgrass  
2#/acre PLS – Galleta grass  
2#/acre PLS – Fourwing saltbrush  
2#/acre PLS – Antelope Bitterbrush  
1#/acre PLS – Forage Kocha  
1#/acre PLS – Scarlet globemallow  
14#/acre PLS – TOTAL

Seed shall be viability-tested in accordance with State law(s) and within 9 months before purchase. On private land, BLM recommended seed mixes are recommended, but the surface landowner has ultimate authority over the seed mix to be used in reclamation, provided that it contains no State or County noxious, prohibited, or restricted weed seeds and that it contains no more than 0.5 percent by weight of other weed seeds.

Fall seeding will be completed after September 1, and prior to prolonged ground frost. To be effective, spring seeding will be completed after the

frost has left the ground and prior to May 15<sup>th</sup>. Perennial vegetation must be established, so additional prep and reseeding will be completed annually until standards are met. Seeding will be considered successful when the site is protected from erosion and revegetated with a self-sustaining, vigorous, diverse, native (or otherwise approved) plant community that minimizes loss of habitat, visual resources, and forage. Reclamation will be considered successful if the following criteria are met:

- 70% of the cover of a comparable undisturbed adjacent area.
- 90% dominate species\*
- Erosion features equal to or less than surrounding area

\* The vegetation will consist of species included in the seed mix and/or occurring in the surrounding natural vegetation.

3. Final Restoration (Dry Hole, Abandon Location – Removal of Equipment)

- i. Flowlines on location will be removed before final site reclamation and all surface flowlines between the wellsite and production facilities will be removed. If any buried flowlines remain, they would be filled with water and capped below ground level. Any offsite surface pipelines that are not necessary for other field operations will be removed.
- ii. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Salvaged topsoil will be spread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut/fill slopes.

If necessary to ensure timely revegetation, the pad will be fenced to BLM standards to exclude livestock grazing for the first two growing seasons or until seeded species become firmly established, whichever comes later. Fencing will meet standards found on page 18 of the Gold Book, 4<sup>th</sup> Edition. Revegetation will be accomplished by planting mixed grasses as specified below. Revegetation is recommended for road area as well as around production site.

iii. **A proposed seed mixture for this location is:**

- 3#/acre PLS – Indian ricegrass
- 3#/acre PLS – Intermediate wheatgrass
- 2#/acre PLS – Galleta grass
- 2#/acre PLS – Fourwing saltbrush
- 2#/acre PLS – Antelope Bitterbrush
- 1#/acre PLS – Forage Kocha

1#/acre PLS – Scarlet globemallow

14#/acre PLS – TOTAL

The seeds shall be certified weed free. Seeding shall be done between September 1 and February 28.

- iv. Distribute topsoil, if any remains, evenly over the location, and seed according to the above seed mixture. If needed the access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- v. Once Federal authorization has been given, access roads and well pad locations will have any all-weather surfacing material removed once the well has been completed and final reclamation is underway.

**K. OWNERSHIP**

1. Mineral Lessor  
Bureau of Land Management  
Moab Field Office  
82 East Dogwood  
Moab, UT 84532      Phone: 435-259-2100
2. Surface Owner  
Drillsite & Access  
Bureau of Land Management  
Moab Field Office  
82 East Dogwood  
Moab, UT 84532      Phone: 435-259-2100

**L. ADDITIONAL INFORMATION**

1. Project area is situated in the Lisbon Sandstone Draw area.
2. Topographic and geologic features: rocky soil, extensive areas of exposed bedrock.
3. Flora consists of: Juniper, Pinyon Pine, Mountain Mahogany, Prickly Pear, Indian Ricegrass, Mormon Tea, Groundsel, Bladderpod, Mustard, Matchbrush, Barrel Cactus.
4. Fauna: none observed. Site will incur Raptor stips (2/1- 8/31), migratory bird stips (5/1 – 8/1), Mexican Spotted Owl survey.
5. Patara will be fully responsible for the actions of their subcontractors. A copy of the approved APD and Conditions of Approval will be on location during drilling and completion operations.
6. Archaeological, cultural and historical information will be submitted under separate cover.
7. If any fossils are discovered during construction, the operator shall cease construction immediately and notify the AO so as to determine the significance of the discovery.

The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the AO. The AO will inform the operator as to the work needed to determine the following:

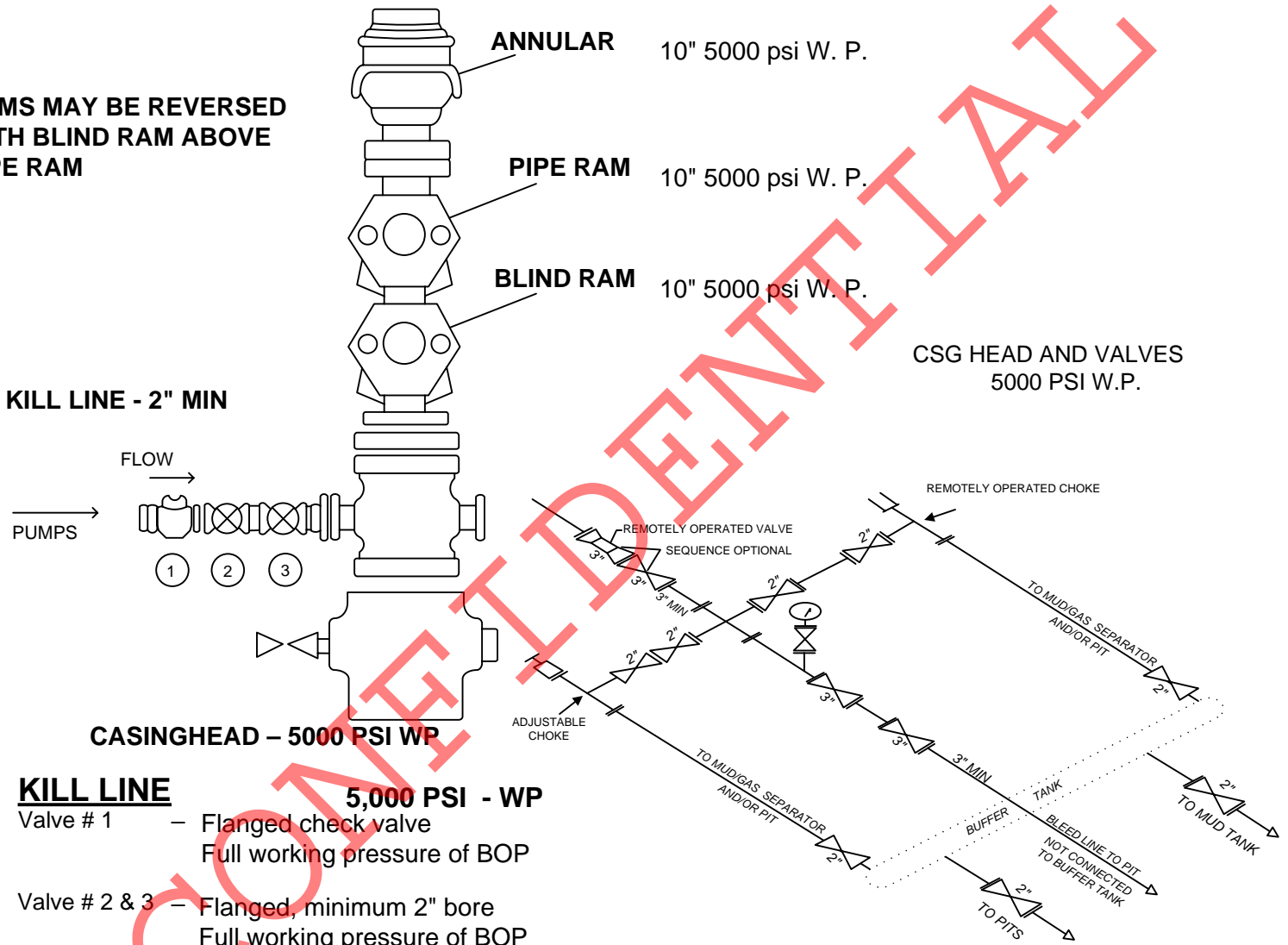
- Whether the materials appear eligible for the National Register of Historic Places; the mitigation measures the operator will likely have to undertake before the site can be used (assuming in site preservation is not necessary).
  - A timeframe for the AO to complete an expedited review to acquire the State Historic Preservation Officer's concurrence that the findings of the AO are correct and that mitigation is appropriate.
8. Any construction activity in the areas shall be done with awareness that many natural gas pipelines are buried. Some locations are apparent; some have grown over with weeds and brush. It is recommended that before digging, contractors should contact the operators in the area to locate all lines.
9. Patara Oil & Gas LLC maintains a file, per 29 CFR 1910.1200(g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling, completion, and production operations for this project. Hazardous materials (substances) which may be transported across these lands may include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous substances, EHS, and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

# MINIMUM BOP Requirements

5000 PSI

FILL LINE ABOVE THE UPPERMOST PREVENTER

RAMS MAY BE REVERSED  
WITH BLIND RAM ABOVE  
PIPE RAM



## GENERAL RULES AND RECOMMENDATIONS

All lines to manifold are to be at right angles (90 deg.). No 45 deg. Angles are to be used.  
Blind flanges are to be used for blanking.  
All studs and nuts are to be installed on all flanges.



## Patara Oil & Gas LLC

Dominion Towers • 600 17th Street, Suite 1900S • Denver, CO 80202

Phone (303) 825-0685 • Fax: (720) 235-4560

December 28, 2011

Ms. Diana Mason  
Utah Department of Natural Resources  
Division of Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, UT 84116

RE: Rule R649-3-11. Directional Drilling  
**Lisbon 11-22MC Well**  
Lisbon (McCracken) Unit  
San Juan County, Utah

Dear Ms. Mason:

Reference is made to that certain application for permit to drill (APD) covering the captioned well, which well is presently surface located 1530' FNL and 859' FWL of Section 11, T30S, R24E, and bottomhole located 631' FNL and 730' FWL of Section 11 of said township, in San Juan County, Utah (surveyor plat enclosed). The bottomhole location for this step out well targeting the McCracken formation is located outside the 400 feet square "window" provided for under state rule R649-3-2. In accordance with state rule R649-3-11, Patara hereby respectfully requests an exception to said Location and Siting Wells rule and provides the following information in support thereof:

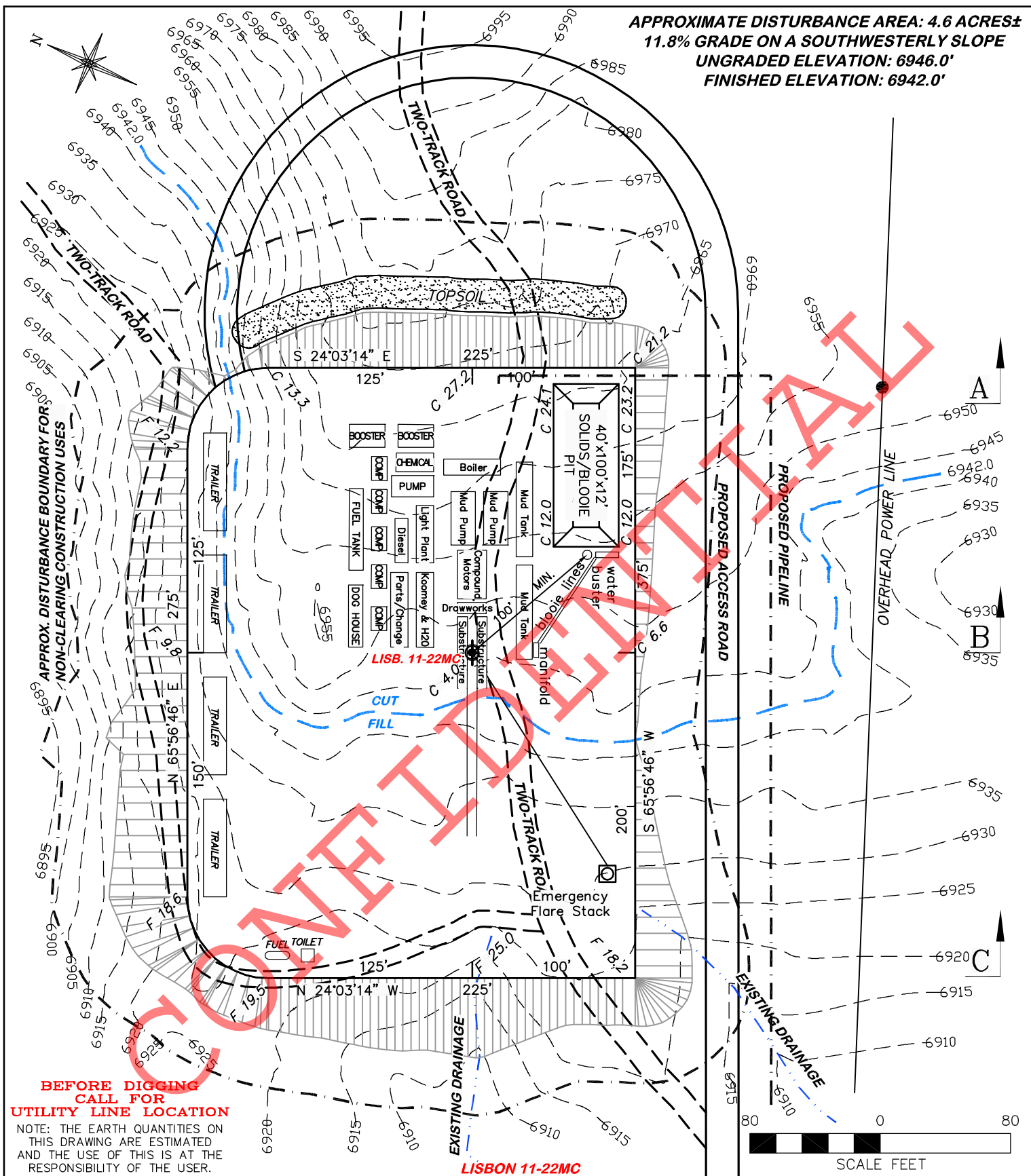
- 1.) Patara holds 100% of the oil and gas leasehold interest within a 460' radius of the proposed bottomhole location. Said leasehold is covered under Federal Oil and Gas Lease bearing the serial number UTSL-0 070008A, which covers, in part, the N2 of said Section 14 and the W2 of said Section 11; and
- 2.) Said leasehold is committed to the Lisbon (McCracken) Federal Unit, case number UTU-066515A. The Unit Agreement serves to unitize all substances in the McCracken formation under the separate unit tracts forming one unit area to effectively and efficiently develop the unitized substances.

In consideration of the foregoing, we therefore respectfully request an exception to rule R649-3-2 for purposes of drilling the captioned well with a bottomhole at the location set forth in the revised APD. Should you have any questions, regarding this matter, please do not hesitate to give me a call at 303-563-5375.

Sincerely,

**Patara Oil & Gas LLC**  
Cassandra Squyres  
Landman





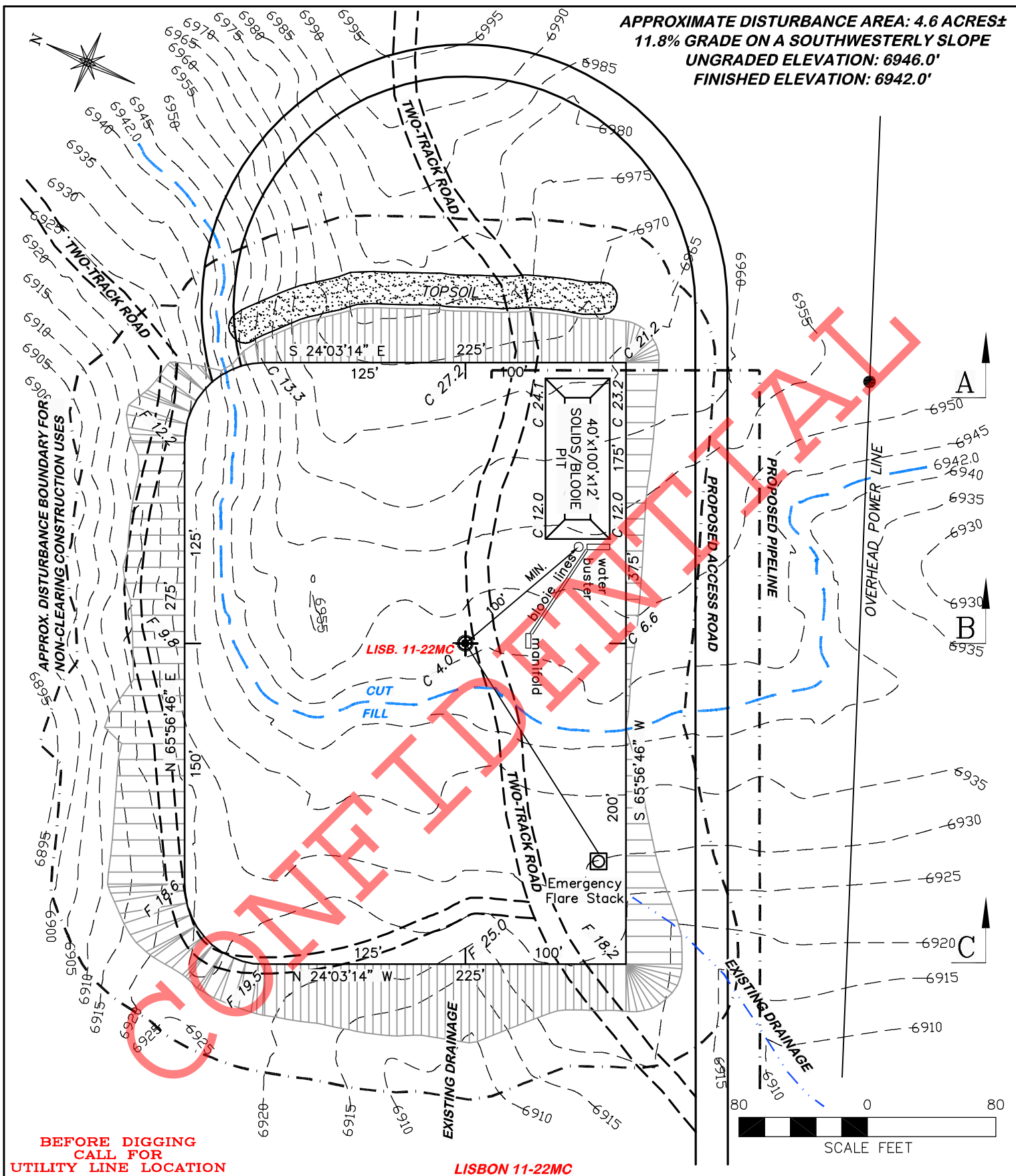
**DRG** **RIFFIN & ASSOCIATES, INC.**  
 1414 ELK ST., ROCK SPRINGS, WY 82901  
 (307) 362-5028

**PATARA OIL & GAS, LLC**  
**LISBON 11-22MC**  
**SECTION 11, T30S, R24E**  
**ESTIMATED EARTHWORK**

|                                  |                          | ITEM          | CUT              | FILL             | TOPSOIL         | EXCESS          |
|----------------------------------|--------------------------|---------------|------------------|------------------|-----------------|-----------------|
| <b>DRAWN: 10/19/10 - MMM</b>     | <b>SCALE: 1" = 80'</b>   | <b>PAD</b>    | <b>28,191 CY</b> | <b>26,290 CY</b> | <b>1,890 CY</b> | <b>11 CY</b>    |
| <b>REVISED: 12/08/2011 - CDC</b> | <b>DRG JOB No. 18173</b> | <b>PIT</b>    | <b>1,975 CY</b>  |                  |                 | <b>1,975 CY</b> |
| <b>REVISED PAD/RIG LAYOUT</b>    | <b>EXHIBIT 2</b>         | <b>TOTALS</b> | <b>30,166 CY</b> | <b>26,290 CY</b> | <b>1,890 CY</b> | <b>1,986 CY</b> |

**RECEIVED:** December 28, 2011





(307) 362-5028

**RIFFIN & ASSOCIATES, INC.**  
 1414 ELK ST., ROCK SPRINGS, WY 82901

DRAWN: 10/19/10 - MMM

SCALE: 1" = 80'

REVISED: 12/08/2011 - CDC

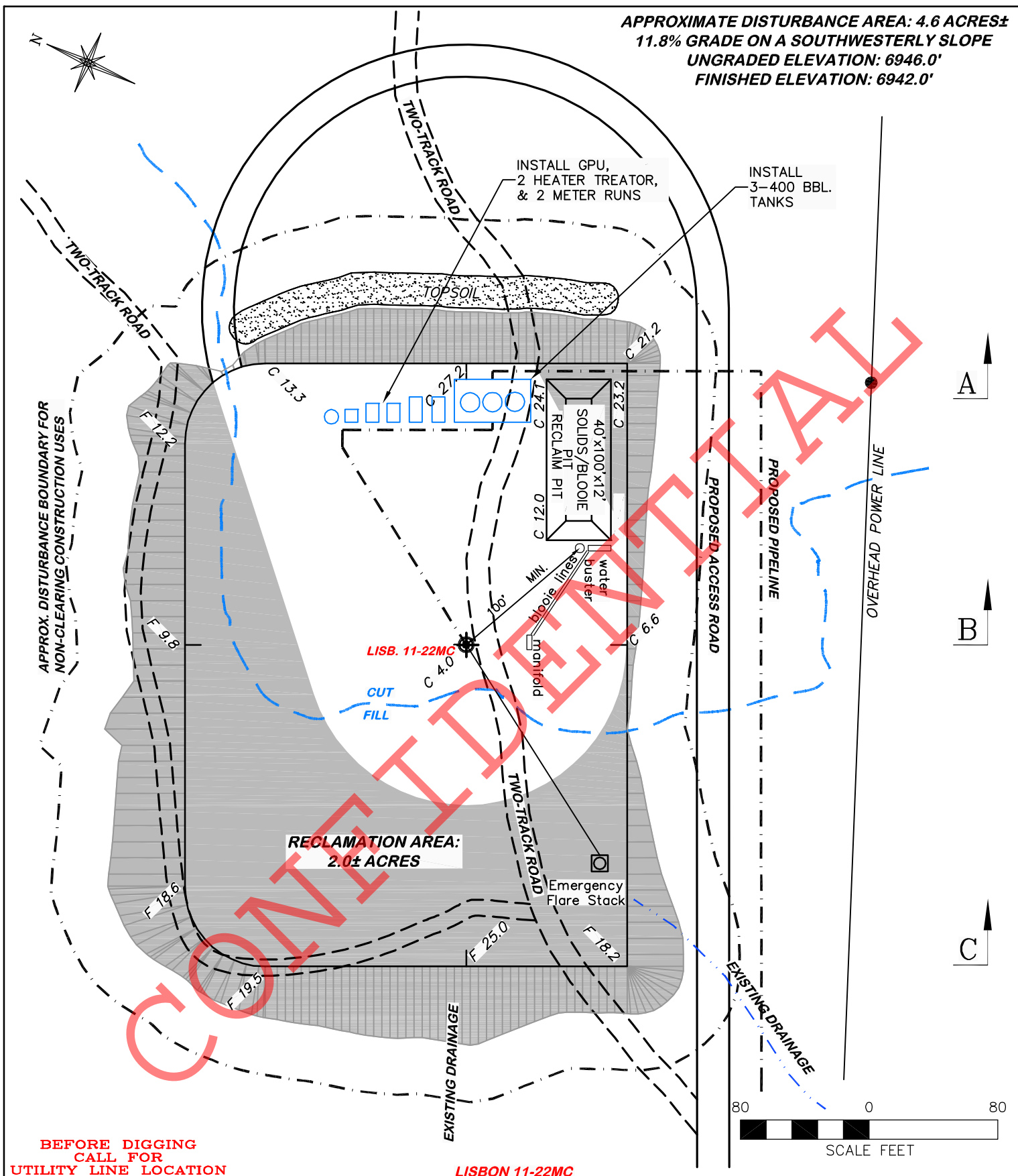
DRG JOB No. 18173


REVISED PAD/RIG LAYOUT

EXHIBIT 2A

**PATARA OIL & GAS, LLC**  
**LISBON 11-22MC**  
**SECTION 11, T30S, R24E**
**UNGRADED ELEVATION: 6946.0'**  
**FINISHED ELEVATION: 6942.0'**

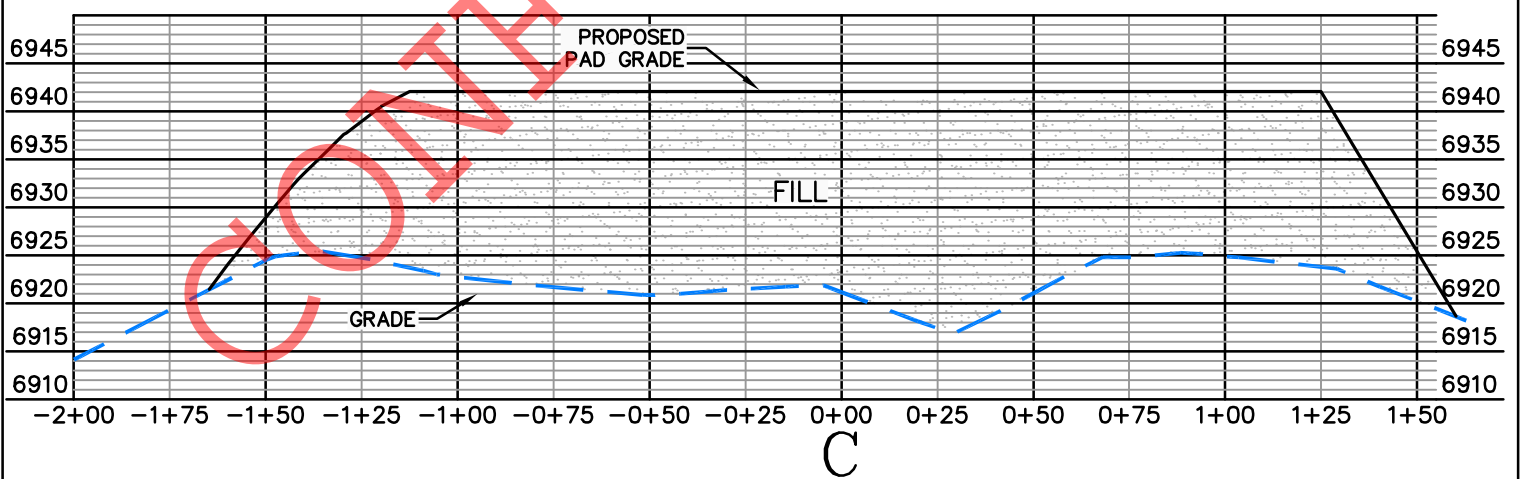
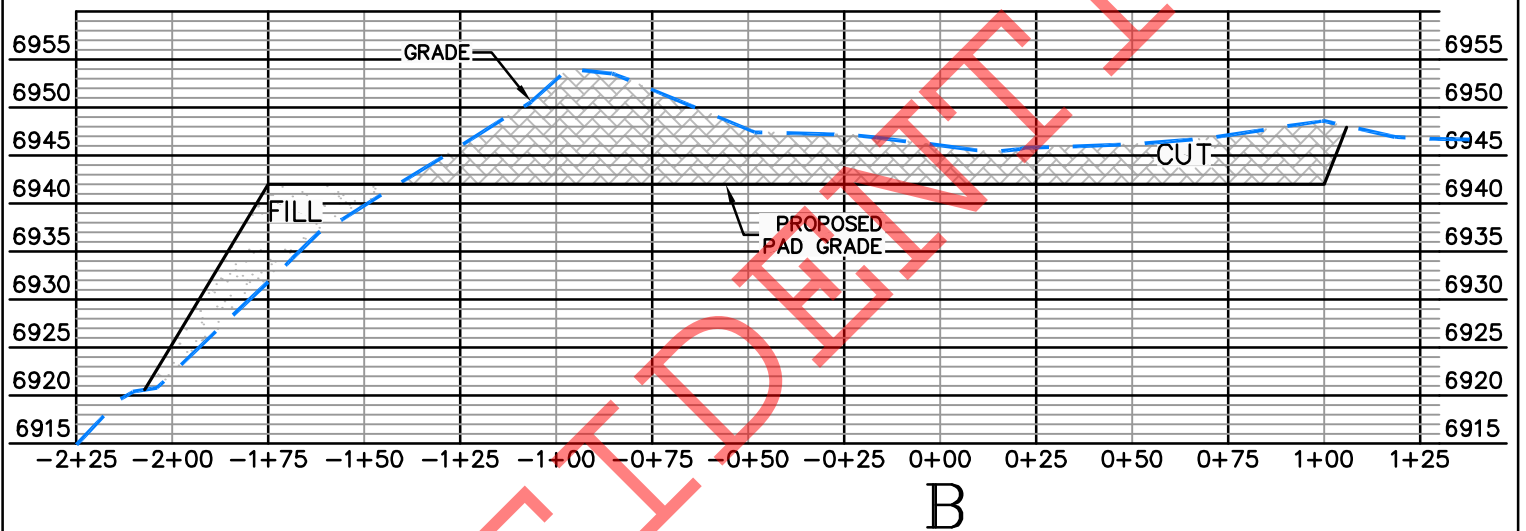
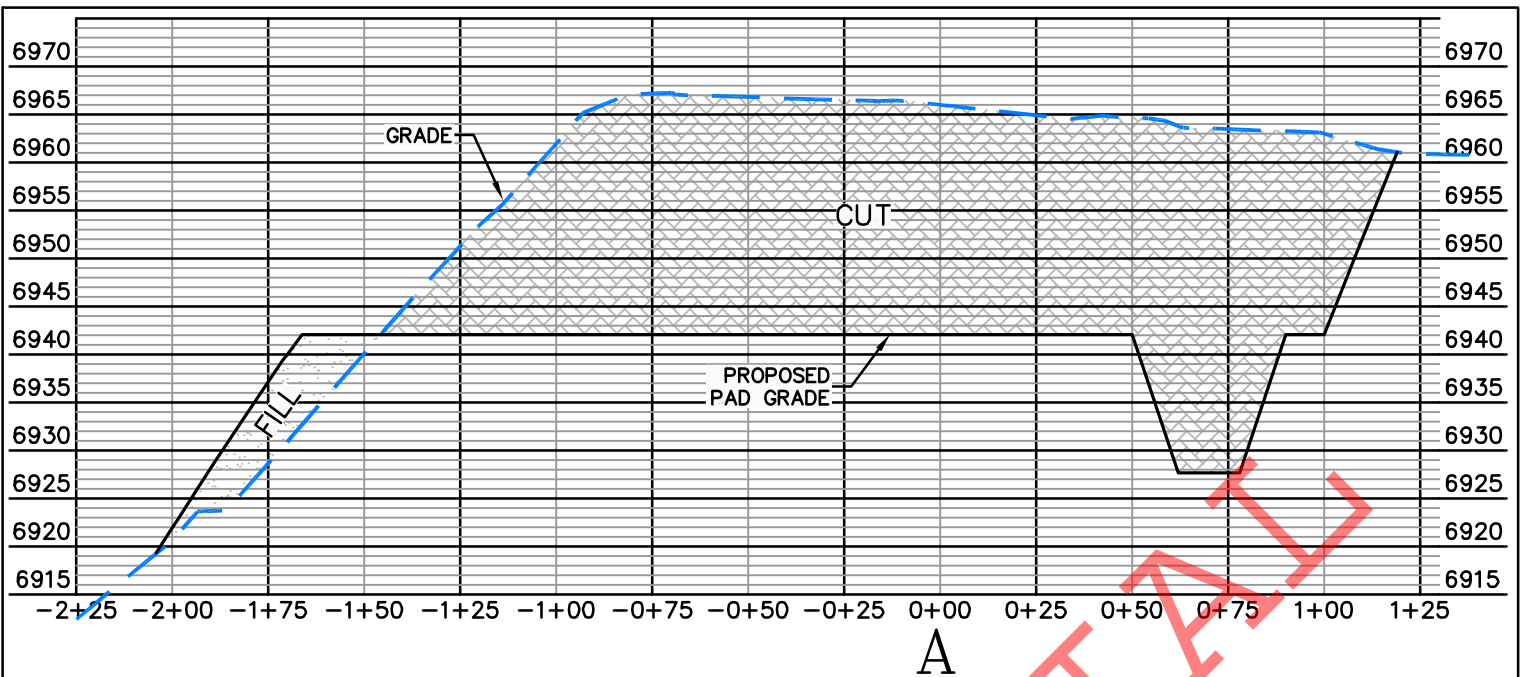
RECEIVED: December 28, 2011



|   |                          |
|---|--------------------------|
|  <b>DRG RIFFIN &amp; ASSOCIATES, INC.</b><br>(307) 362-5028 1414 ELK ST., ROCK SPRINGS, WY 82901 |                          |
| <b>DRAWN: 12/08/2011 - CDC</b>  | <b>SCALE: 1" = 80'</b>   |
| <b>REVISED: -</b>   | <b>DRG JOB No. 18173</b> |
| <b>-</b>  | <b>EXHIBIT 2B</b>        |

**RECLAMATION PLAN**  
**PATARA OIL & GAS, LLC**  
**LISBON 11-22MC**  
**SECTION 11, T30S, R24E**

**UNGRADED ELEVATION: 6946.0'**  
**FINISHED ELEVATION: 6942.0'**



LISBON 11-22MC

**DRG** RIFFIN & ASSOCIATES, INC.  
 (307) 362-5028 1414 ELK ST., ROCK SPRINGS, WY 82901

DRAWN: 10/19/10 - MMM

HORZ. 1" = 50' VERT. 1" = 20'

REVISED: 12/08/2011 - cdc

DRG JOB No. 18173

UPDATED PROFILES

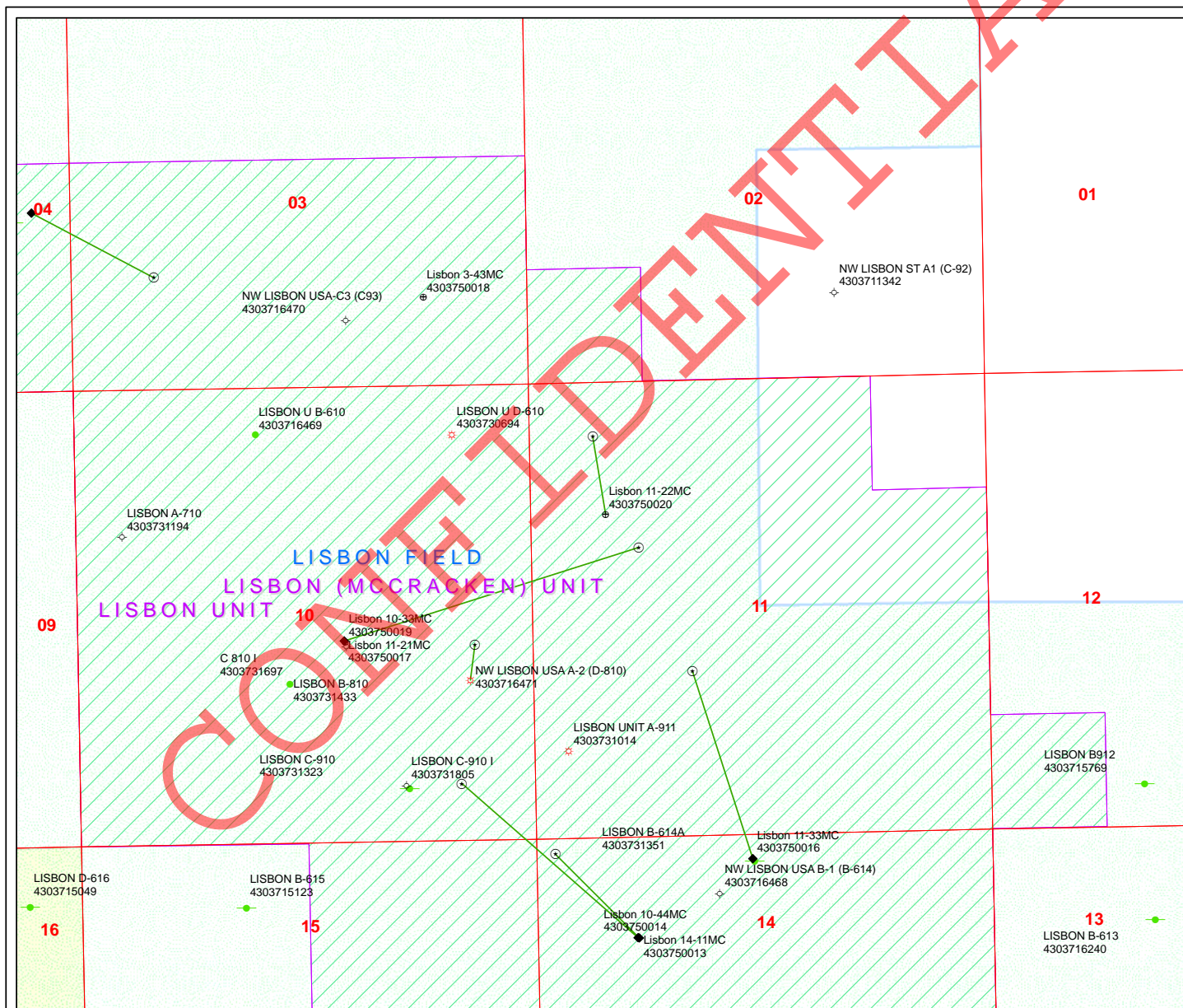
EXHIBIT 3

**PATARA OIL & GAS, LLC**  
**LISBON 11-22MC**  
**SECTION 11, T30S, R24E**

**UNGRADED ELEVATION: 6946.0'**  
**FINISHED ELEVATION: 6942.0'**

RECEIVED: December 28, 2011

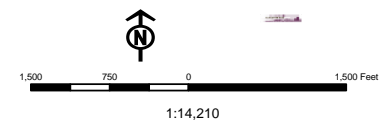
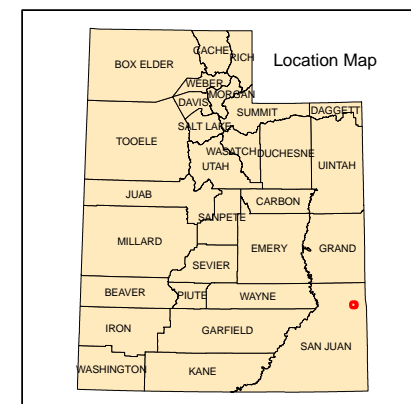




**API Number: 4303750020**  
**Well Name: Lisbon 11-22MC**  
**Township T3.0 . Range R2.4 . Section 11**  
**Meridian: SLBM**  
**Operator: PATARA OIL & GAS, LLC**

Map Prepared:  
 Map Produced by Diana Mason

| Units Query Status | Wells Query Status                 |
|--------------------|------------------------------------|
| ACTIVE             | APD - Approved Permit              |
| EXPLORATORY        | DRL - Spudded (Drilling Commenced) |
| GAS STORAGE        | GIW - Gas Injection                |
| NF PP OIL          | GS - Gas Storage                   |
| NF SECONDARY       | LA - Location Abandoned            |
| PI OIL             | LOC - New Location                 |
| PP GAS             | OPS - Operation Suspended          |
| PP GEOTHERMAL      | PA - Plugged Abandoned             |
| PP OIL             | PGW - Producing Gas Well           |
| SECONDARY          | POW - Producing Oil Well           |
| TERMINATED         | RET - Returned APD                 |
|                    | SGW - Shut-in Gas Well             |
|                    | SOW - Shut-in Oil Well             |
|                    | TA - Temp. Abandoned               |
|                    | TW - Test Well                     |
|                    | WDW - Water Disposal               |
|                    | WW - Water Injection Well          |
|                    | WSW - Water Supply Well            |



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3160  
(UT-922)

January 6, 2012

Memorandum

To: Assistant Field Office Manager Resources,  
Moab Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Lisbon McCracken  
Unit, San Juan County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Lisbon McCracken Unit, San Juan County, Utah.

| API#                          | WELL NAME      | LOCATION                           |
|-------------------------------|----------------|------------------------------------|
| (Proposed PZ McCracken/Lynch) |                |                                    |
| 43-037-50018                  | Lisbon 3-43MC  | Sec 03 T30S R24E 1020 FSL 1206 FEL |
| 43-037-50019                  | Lisbon 10-33MC | Sec 10 T30S R24E 2328 FSL 2177 FEL |
| 43-037-50020                  | Lisbon 11-22MC | Sec 11 T30S R24E 1530 FNL 0859 FWL |
|                               | BHL            | Sec 11 T30S R24E 0631 FNL 0730 FWL |

Please be advised that the Lisbon McCracken Unit only unitizes the McCracken member of the Elbert formation as identified by the Dual Laterolog MicroSFL run in the Union Lisbon B-210 well located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 10, Township 30 South, Range 24 East, San Juan County, Utah at a measured depth between 8,495 and 8,610 feet. Production from the Cambrian Lynch cannot be downhole or surface commingled without prior approval from the Moab Field Office.

Michael L. Coulthard

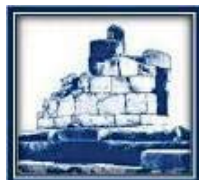
Digitally signed by Michael L. Coulthard  
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael\_Coulthard@blm.gov, c=US  
Date: 2012.01.06 09:10:46 -0700

bcc: File - Lisbon McCracken Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:1-6-12

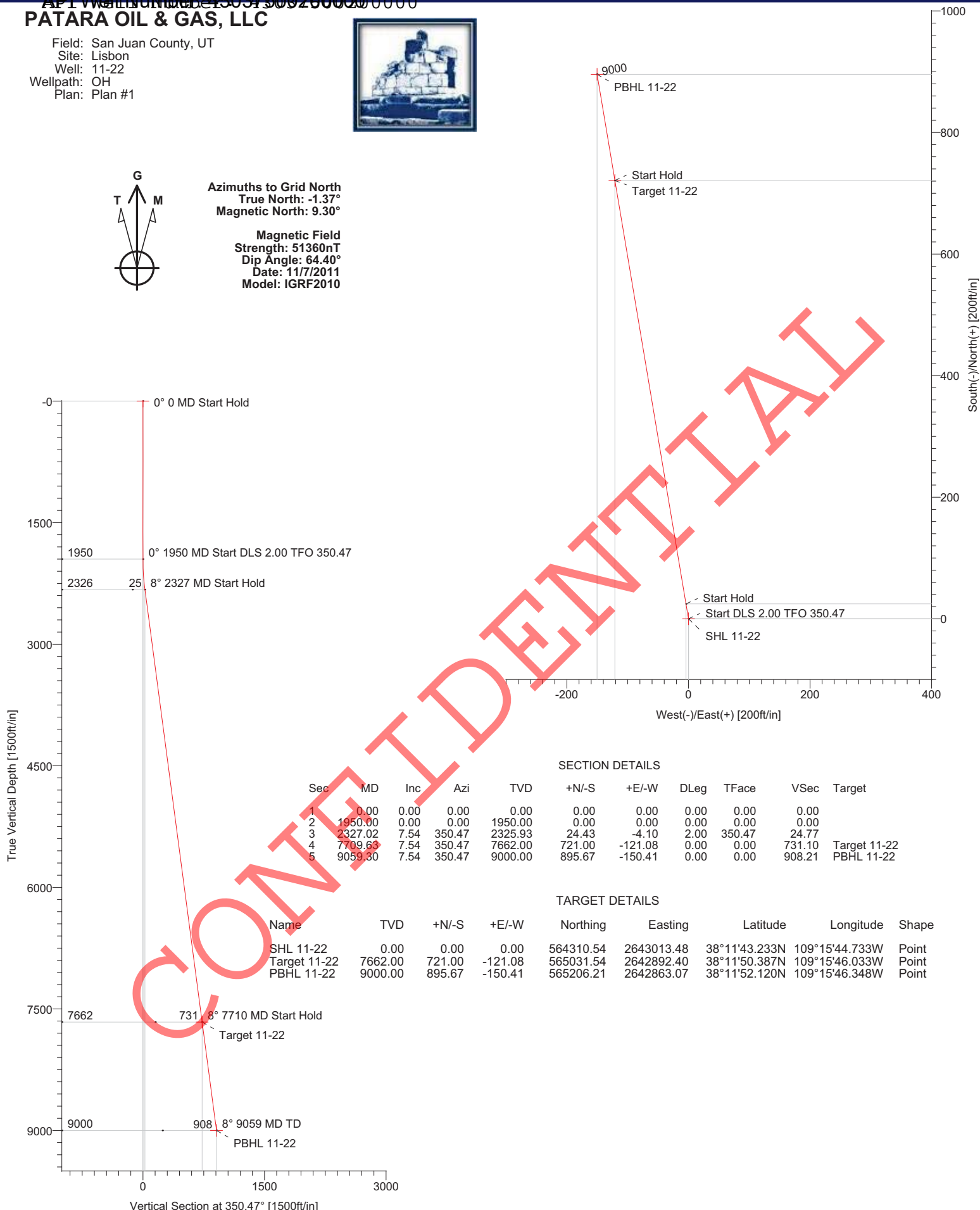
RECEIVED: January 06, 2012

Field: San Juan County, UT  
Site: Lisbon  
Well: 11-22  
Wellpath: OH  
Plan: Plan #1



Azimuths to Grid North  
True North: -1.37°  
Magnetic North: 9.30°

Magnetic Field  
Strength: 51360nT  
Dip Angle: 64.40°  
Date: 11/7/2011  
Model: IGRF2010



LEAM DRILLING SYSTEMS, INC.  
2010 East Davis Conroe, Texas 77301  
Phone: 936-756-7577 Fax: 936-756-7595

Plan: Plan #1 (11-22/OH)  
Created By: Justin Andoe Date: 11/7/2011  
Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_  
Approved: \_\_\_\_\_ Date: \_\_\_\_\_

Received December 28, 2011

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/28/2011

API NO. ASSIGNED: 43037500200000

WELL NAME: Lisbon 11-22MC

OPERATOR: PATARA OIL &amp; GAS, LLC (N3670)

PHONE NUMBER: 303 563-5378

CONTACT: Danielle Gavito

PROPOSED LOCATION: SWNW 11 300S 240E

Permit Tech Review: ☒

SURFACE: 1530 FNL 0859 FWL

Engineering Review: ☐

BOTTOM: 0631 FNL 0730 FWL

Geology Review: ☒

COUNTY: SAN JUAN

LATITUDE: 38.19534

LONGITUDE: -109.26312

UTM SURF EASTINGS: 652094.00

NORTHINGS: 4228914.00

FIELD NAME: LISBON

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTSL70008A

PROPOSED PRODUCING FORMATION(S): LYNCH

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

☒ PLAT☒ Bond: FEDERAL - UTB000428☐ Potash☐ Oil Shale 190-5☐ Oil Shale 190-3☐ Oil Shale 190-13☒ Water Permit: COMMERCIAL☐ RDCC Review:☐ Fee Surface Agreement☐ Intent to Commingle

Commingling Approved

## LOCATION AND SITING:

☐ R649-2-3.

Unit: LISBON (MCCRACKEN)

☐ R649-3-2. General☐ R649-3-3. Exception☒ Drilling Unit

Board Cause No: R649-3-11

Effective Date:

Siting:

☒ R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason  
15 - Directional - dmason  
23 - Spacing - dmason

RECEIVED: January 12, 2012





## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

### Permit To Drill

\*\*\*\*\*

**Well Name:** Lisbon 11-22MC  
**API Well Number:** 43037500200000  
**Lease Number:** UTSL70008A  
**Surface Owner:** FEDERAL  
**Approval Date:** 1/12/2012

**Issued to:**

PATARA OIL & GAS, LLC, 600 17th Street Ste 1900S, Denver, CO 80202

**Authority:**

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-11. The expected producing formation or pool is the LYNCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

**Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

**General:**

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

**Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board

establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

**Approved By:**

A handwritten signature in black ink, appearing to read "John Rogers", written over a horizontal line.

For John Rogers  
Associate Director, Oil & Gas

|  |   |  |
|--|---|--|
| <b>STATE OF UTAH</b><br>DEPARTMENT OF NATURAL RESOURCES<br>DIVISION OF OIL, GAS, AND MINING  |   | <b>FORM 9</b><br><br><b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b><br>UTSL70008A                              |
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br><br>Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.   |   | <b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b><br><br><b>7. UNIT or CA AGREEMENT NAME:</b><br>LISBON (MCCRACKEN) |
| <b>1. TYPE OF WELL</b><br>Oil Well   | <b>8. WELL NAME and NUMBER:</b><br>Lisbon 11-22MC   |  |
| <b>2. NAME OF OPERATOR:</b><br>PATARA OIL & GAS, LLC   |   | <b>9. API NUMBER:</b><br>43037500200000  |
| <b>3. ADDRESS OF OPERATOR:</b><br>600 17th Street Ste 1900S , Denver, CO, 80202  | <b>PHONE NUMBER:</b><br>303 563-5364 Ext  | <b>9. FIELD and POOL or WILDCAT:</b><br>LISBON   |
| <b>4. LOCATION OF WELL</b><br><b>FOOTAGES AT SURFACE:</b><br>1530 FNL 0859 FWL<br><b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b><br>Qtr/Qtr: SWNW Section: 11 Township: 30.0S Range: 24.0E Meridian: S  |   | <b>COUNTY:</b><br>SAN JUAN<br><br><b>STATE:</b><br>UTAH  |
| <b>11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</b>   |   |  |
| <b>TYPE OF SUBMISSION</b>  | <b>TYPE OF ACTION</b>   |  |
| <input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b><br>Approximate date work will start:<br>8/28/2012<br><br><input type="checkbox"/> <b>SUBSEQUENT REPORT</b><br>Date of Work Completion:<br><br><input type="checkbox"/> <b>SPUD REPORT</b><br>Date of Spud:<br><br><input type="checkbox"/> <b>DRILLING REPORT</b><br>Report Date:  | <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE<br/> <input type="checkbox"/> CHANGE TO PREVIOUS PLANS<br/> <input type="checkbox"/> CHANGE WELL STATUS<br/> <input type="checkbox"/> DEEPEN<br/> <input type="checkbox"/> OPERATOR CHANGE<br/> <input type="checkbox"/> PRODUCTION START OR RESUME<br/> <input type="checkbox"/> REPERFORATE CURRENT FORMATION<br/> <input type="checkbox"/> TUBING REPAIR<br/> <input type="checkbox"/> WATER SHUTOFF<br/> <input type="checkbox"/> WILDCAT WELL DETERMINATION         </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING<br/> <input type="checkbox"/> CHANGE TUBING<br/> <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS<br/> <input type="checkbox"/> FRACTURE TREAT<br/> <input type="checkbox"/> PLUG AND ABANDON<br/> <input type="checkbox"/> RECLAMATION OF WELL SITE<br/> <input type="checkbox"/> SIDETRACK TO REPAIR WELL<br/> <input type="checkbox"/> VENT OR FLARE<br/> <input type="checkbox"/> SI TA STATUS EXTENSION<br/> <input checked="" type="checkbox"/> OTHER         </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR<br/> <input type="checkbox"/> CHANGE WELL NAME<br/> <input type="checkbox"/> CONVERT WELL TYPE<br/> <input type="checkbox"/> NEW CONSTRUCTION<br/> <input type="checkbox"/> PLUG BACK<br/> <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION<br/> <input type="checkbox"/> TEMPORARY ABANDON<br/> <input type="checkbox"/> WATER DISPOSAL<br/> <input type="checkbox"/> APD EXTENSION<br/>           OTHER: <span style="border: 1px solid black; padding: 2px;">Rescind APD</span> </div> </div> |  |
| <b>12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.</b><br>08/24/2012 Patara Oil & Gas LLC wishes to rescind the approved APD for this well due to difficulties in receiving an approved Federal APD. The request for a Federal APD has also been rescinded as of August 28, 2012. If you have any questions or concerns please contact me at either 303-563-5378 or at dgavito@pataraog.com. Thank you. |   |  |
| <b>NAME (PLEASE PRINT)</b><br>Danielle Gavito  | <b>PHONE NUMBER</b><br>303 563-5378   | <b>TITLE</b><br>Regulatory Technician  |
| <b>SIGNATURE</b><br>N/A  |   | <b>DATE</b><br>8/28/2012   |

RECEIVED: Aug. 28, 2012



GARY R. HERBERT  
Governor

GREG BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

August 29, 2012

Patara Oil & Gas, LLC  
600 17<sup>TH</sup> St. Suite 1900  
Denver, CO 80202

Re: APD Rescinded – Lisbon 11-22MC Sec. 11, T.30S, R. 24E  
San Juan County, Utah API No. 43-037-50020

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on January 12, 2012. On August 28, 2012, you requested that the division rescind the state approved APD. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective August 28, 2012.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Moab